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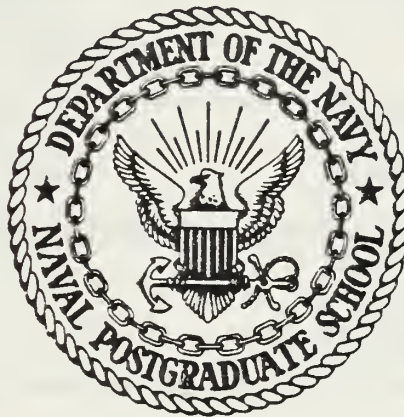
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THESIS

A REVIEW OF SHIPBOARD UNIFORM AUTOMATED
DATA PROCESSING SYSTEM (SUADPS) AS A
FINANCIAL INFORMATION AND CONTROL
SYSTEM FOR OPTAR FUNDS

by

Randy A. Worley

June 1983

Thesis Advisors:

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S. Liao

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#20 - ABSTRACT - (CONTINUED)

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A survey of the managers and users of the SUADPS system in relation to financial management aboard several Submarine Tenders was carried out to uncover deficiencies in implementation and recommendations for their improvement or resolution. The thesis findings also provide SUADPS designers and command level management with the user perspectives of SUADPS resource management operations and problems.

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A Review of Shipboard Uniform Automated
Data Processing System (SUADPS) as a
Financial Information and Control
System for OPTAR Funds

by

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Lieutenant Commander, Supply Corps, United States Navy
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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL

June 1983

ABSTRACT

Responding to the call for better resource management, improvements in financial procedures and practices, and the reduction of waste within the Defense Department, this thesis presents a review of the Navy's major afloat supply and accounting system. A review of this Shipboard Uniform Automated Data Processing System (SUADPS) was conducted to determine if the system met the objectives of an efficient and effective financial information and control system.

A survey of the managers and users of the SUADPS system in relation to financial management aboard several Submarine Tenders was carried out to uncover deficiencies in implementation and recommendations for their improvement or resolution. The thesis findings also provide SUADPS designers and command level management with the user perspectives of SUADPS resource management operations and problems.

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I. INTRODUCTION

A. GENERAL

In support of his election mandate, President Reagan has embarked on a campaign during his administration to build up the Defense Department. The President's support for a strong defense is a favorite topic of the media and has already been clearly reflected in Fiscal Year (FY) 1981 and FY 1982 Defense Budget revisions of \$6.8 and \$25.8 Billion, respectively. His continued strong support of the Defense Department's revitalization is projected through FY 1987 as shown in Exhibit 1. This type of Presidential support for the military cause carries with it heavy responsibilities. In the words of the Deputy Secretary of Defense, Frank Carlucci, "With this call for increased Defense spending has come a new emphasis on the need for Defense managers to do a better job with the resources entrusted to them. This requires a new commitment to eliminate waste, wherever it is found, and to do our utmost to prevent fraud and abuse" [Ref. 1: p. 4].

This call for better resource management, improvements in financial procedures and practices, and reduction of governmental waste is an appeal for effective financial information and control systems within the Defense Department. One such system in operation within the Naval fleet is the Shipboard Uniform Automated Data Processing System (SUADPS).

EXHIBIT 1

The Defense Budget in the Proper Perspective

The 5-Year Defense Plan						
	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
<u>TOA</u>						
Current Dollars	214.2	258.0	285.5	331.7	367.6	400.8
FY 1983 Dollars	227.8	258.0	269.8	297.8	314.0	325.9
<u>Outlays</u>						
Current Dollars	182.8	215.9	247.0	285.5	324.0	356.0
FY 1983 Dollars	195.4	215.9	233.2	255.6	276.0	288.7
Defense Budget as a Percent of GNP	5.9	6.3	6.5	6.9	7.2	7.4

This thesis evaluates the financial information and control aspects of the SUADPS system.

B. BACKGROUND

Over the years the SUADPS system has undergone numerous modifications to bring it to its current state. The requirements and environment of the SUADPS system today are of a higher order of complexity than those at its inception. Instead of a simplified clerical support system, the SUADPS system today operates as a comprehensive and integrated management information and control system. Currently, the SUADPS system is in extensive service within the Navy's fleet.

SUADPS currently operates on an "ancient" computer system (due to the rapid technological advances in the field of Computer System Applications); operates differently than its original design envisioned and within an extremely complex environment. For these above reasons and in response to the Commander in Chief's call for improvements in resource management, updating of the SUADPS system is urgently needed.

SUADPS does, as a portion of the name (Uniform) implies, standardize the supply and financial functions aboard Naval afloat units. Not only is the SUADPS system extensively in use aboard all the major fleet units, it is also currently projected to be implemented by numerous additional Naval units in a program designated as Shipboard Non-Tactical

Automated Data Processing System (SNAP II) by FY 1986. This prospect even further reinforces the need for the study of the SUADPS system. The SNAP program will be discussed in detail later in this thesis.

C. OBJECTIVE AND SCOPE OF STUDY

The objective of this thesis is to review and assess the utilization of a major Naval afloat accounting system designated as SUADPS. SUADPS is a highly complex and integrated supply and financial system. As such, an analysis of the entire system (supply and financial) is too encompassing for a complete analysis in this thesis. Accordingly, this thesis is confined to a review of the portion of SUADPS concerned with the financial information and control aspects and not those of inventory control and resupply.

A review of the accounting aspects of the Automated Data Processing System (SUADPS) will be conducted from the perspective of the user in an effort to determine if the system achieves the goals of an effective financial control system.

The effectiveness with which an accounting system satisfies both its own immediate objectives as well as an organization's wider purposes depends on both the relevance and the accuracy of the information which it provides and the way in which the information is used by the members of the organization. [Ref. 2, p. 115]

Accuracy in this sense must also include not only validity but timeliness as well. If SUADPS as a financial information and control system does not achieve these goals,

deficiencies will be identified, complete with recommendations for their improvement.

SUADPS is operational in a highly varied environment of types and classes of ships as its design justifiably calls for. In the interest of obtaining specific and insightful information for analysis, concentration on Submarine Tender Financial Information and Control Systems was conducted. Submarine Tenders were selected for a SUADPS financial review for several important reasons. First, submarines are extremely vital to the United States National Defense. Secondly, both classes of Submarine Tenders (AS, AS(FBM)) possess a more complex dual mission of Supply and Repair which influences their SUADPS operations to a certain extent. (See Exhibit 2 for specific ship classes' missions and support responsibilities.) Thirdly, Submarine Tenders have a relatively greater SUADPS transactional workload in comparison to other SUADPS ships. (See Exhibit 3 reprinted from Ref. 7, p. 2-13.)

Although Submarine Tender financial resources are obtained from a variety of different fund classifications, the SUADPS system is responsible for only two of these: Navy Stock Fund and Operations and Maintenance Appropriation OPTAR. This thesis is not concerned with the resupply and inventory control aspects of SUADPS which are highly correlated with the Naval Stock Fund. The emphasis of this study is from the viewpoint of the operational afloat end user and

EXHIBIT 2

SUADPS SITES AND THEIR MISSIONS

	<u>Class</u>	<u>Quantity</u>	<u>Supply Mission</u>	<u>Repair Mission</u>	<u>Primary Ship Support</u>
AD	Destroyer Tender	10	No	Yes	Surface
AR	Repair Ship	4	No	Yes	Surface
AFS	Combat Stores Ship	7	Yes	No	Surface
AS(FBM)	Fleet Ballistic Missile Submarine Tender	6	Yes	Yes	Submarine
AS	Attack Submarine Tender	7	Yes	Yes	Submarine
CV	Aircraft Carrier	14	Yes	Yes	Aircraft
LPH	Amphibious Assault Ship	7	No	Yes	Aircraft
LHA	Amphibious Assault Ship	5	No	Yes	Aircraft
MAG	Marine Air Groups	17	No	Yes	Aircraft
MISC	Headquarters, Training and Support Facilities	22	No	No	—
		<u>99</u>			

EXHIBIT 3

SUADPS FILE SIZES AND TRANSACTION VOLUMES

SHIP TYPE	REQUISITION FILE SIZE*	STOCK RECORD FILE SIZE*	CROSS REFERENCE FILE SIZE	TRANSACTION VOLUME**
CV	40	120	67	127
LPH/LHA	13	43	35	18
MAG	22	55	50	79
AFS	30	35	18	19
AS (FBM)	75	91	40	124
AS	42	70	26	75
AD	23	57	31	36
AR	18	48	22	23

*THOUSANDS OF RECORDS

**THOUSANDS OF TRANSACTIONS PER MONTH

therefore the SUADPS review is concentrated on the financial management of OPTAR funds only.

D. RESEARCH METHODOLOGY

The methods used to research and develop this thesis were threefold. Literature reviews of operational procedures, instructions, reference publications, training manuals, and Naval Audit Service audits were extremely helpful in the progress of this thesis.

Onsite operational observations and data collection of financial accounting and reporting management information were administered aboard the Submarine Tenders USS DIXON and the USS SPERRY.

Additionally, interviews of the SUADPS personnel through both personal contact and telephone liaison were instrumental in this thesis study. In excess of twenty-five onsite personal interviews were conducted aboard the Submarine Tenders USS DIXON (San Diego, CA) and USS SPERRY (San Diego, CA). These personal interviews were informal, candid, open-ended discussions with officer and enlisted personnel in SUADPS-related assignments. Similar interviews were also conducted via telephone with personnel of the USS PROTEUS (Guam, M.I.) and several other supply personnel possessing previous SUADPS experience. Further telephone interviews were conducted with representatives of the following commands:

Naval Supply Corps School (NSCS), Athens, Georgia;

Naval Supply Systems Command (NAVSUP 04), Washington,
D.C.;

Naval Material SNAP II Program Office (NAVMAT),
Washington, D.C.

E. THESIS ORGANIZATION

This thesis study is divided into six chapters and seven appendices for an integrated and comprehensive review of SUADPS operations.

The next chapter contains a general overview of SUADPS history, structure, operations and future changes. Chapter III will review the specific Submarine Squadron/Tender organizational relationships associated with the operational SUADPS environment. Chapter IV will deal with the detailed accounting, reporting, and controlling practices in usage by SUADPS system operators and customers. Chapter V will present an assessment of the SUADPS financial information and control system in its implementation as compared to its design theory. Shortcomings and deficiencies uncovered will be discussed in depth. Chapter VI will conclude the thesis with a summary of significant findings with conclusions and recommendations for improvement.

II. AN OVERVIEW OF SUADPS

This chapter provides the reader with basic knowledge of the functions of the Shipboard Uniform Automated Data Processing System (SUADPS), its structure and operations. Further, it provides background information on its current computer support and some information on future changes which are anticipated to impact SUADPS in the near term future.

A. GENERAL CONCEPT AND HISTORICAL DEVELOPMENT

The Shipboard Uniform Automated Data Processing System (SUADPS) was designed to improve afloat supply management by utilizing automated data processing equipment. Under the SUADPS concept, all inventory control and financial records are managed on magnetic tape or drum files.
[Ref. 3, p. 1-3]

Currently drum files are only available to aircraft carriers and fleet ballistic missile submarine tenders. SUADPS applications on all other ship types rely exclusively on tape file processing.

SUADPS is a batch processing, magnetic tape oriented supply and accounting software system, primarily programmed in assembly language (some COBOL programming capabilities are optional) for the AN/UYK-5(V) hardware computer system. A concise synopsis of SUADPS describes the system as follows:

The management requirements for the SUADPS Supply and Accounting System were developed by NAVSUP in cooperation with appropriate fleet commands, type commands, and the comptroller of the Navy. The

data processing system was designed by Navy Maintenance and Supply Systems Office (NAVMASSO). The system was designed to satisfy afloat supply and accounting requirements through maximum automation of routine functions and at the same time provide a wide range of options which could be exercised at the shipboard level. All major files are maintained on magnetic tape thus greatly reducing manual filing. Input is introduced to the system via the media of punched cards or magnetic tape. The computer system updates the appropriate magnetic tape files through a series of computer runs to reflect quantitative and monetary changes occasioned by the transactions processed. The system also produces output reflecting current financial and inventory balances, updated historical data, and exception data requiring management attention. [Ref. 4, p. 3-1]

Until the early 1960's, the afloat supply department support responsibilities were documented through extensive manual records. In early 1962, early automation of some supply and financial functions were accomplished through Electrical Accounting Machines. In 1964, further refinements contributed to the availability of an afloat computer system known as the AN/UYK-5(V)(U-1500). In late 1966 this second generation U-1500 computer system incorporated the supply/financial functions into a software system designated as the Uniform Tender System. With this accomplishment, the afloat operational units took advantage of the new technology through the automation of the clerical routine and repetitive processes. This data processing application was implemented afloat on all the Navy's major vessels operating in a mobile logistics support role.

Evolving and incremental improvements in software design and programming improvements led to the 1969 new software

designated Shipboard Uniform Automated Data Processing System (SUADPS). The newly developed SUADPS system provided even greater utilization of existing technology for faster processing and capabilities to deal with a significant volume of input data. Automated accounting policies and procedures are specified by the Navy Comptroller Manual [Ref. 5] and the Financial Management of Resources [Ref. 6].

The overall goal of the SUADPS system at its inception was to improve the United States Navy afloat supply management through computerizing their supply and accounting functions utilizing the then new automated data processing technology. This improvement was to be accomplished by the substitution of computer processing for manual record keeping procedures. This automation of routine and repetitive tasks essentially computerized the basic clerical systems and thereby provided the ability to enjoy the benefits of faster processing and the handling of greater volumes of input data.

Two versions of SUADPS software were specified for separate classes of ships. Currently SUADPS-EU (End Use) is operational aboard all aircraft carriers (CV), amphibious assault ships (LHA/LPH), and Marine Aircraft Groups (MAG). This end use system (SUADPS-EU) was oriented toward aviation activities with end use (Appropriation Financed vice Navy Stock Fund) funded inventories. SUADPS-207 (Stock Fund Accounting Class 207) is operational aboard all tenders (AD/AS), repair ships (AR), combat stores ships (AFS) and certain shore intermediate

maintenance activities (SIMA). This 207 system (SUADPS-207) was oriented toward maintenance activities and fleet repair and resupply activities with Navy Stock funded inventories. Exhibit 4 provides an actual listing of SUADPS operational units by name as of the date of this thesis. The dual SUADPS-207 and SUADPS-EU systems are currently being somewhat combined since aviation inventories (the driving force behind SUADPS-EU) are currently being converted to Navy Stock Fund Accounting Class 207 funding. SUADPS-EU will be redesignated SUADPS-Aviation 207.

B. SUADPS FUNCTIONS AND FILES

As indicated above, SUADPS was designed to significantly improve afloat supply management through the capabilities of automation. Under the initial SUADPS effort, routine and repetitive functions, particularly those with voluminous input, were programmed for data processing. Thus SUADPS has provided computerized assistance to shipboard clerical functions and allowed shipboard supply departments to become relatively more efficient.

The key mission support and functional capabilities provided by SUADPS are as follows:

- Procuring/requisitioning--the documentation of requisitions for material and services to the applicable supplier with the recording of the transaction to maintain financial accountability and inventory reliability.

- Receiving--identification and receipt processing of material for stock and user requirements complete with historical documentation and reconciliation procedures.

EXHIBIT 4

SUADPS Operational Units

EAST COAST AND LANTFLT AN/UYK-5(V) SYSTEMS

Activity or Ship

COMINELWARCOM
 *DPSC/LANT
 MAYPORT (FMAC)
 NLON - SUBASE
 FAGLANT
 NAVMAC/LANT
 NAVSEC/NORDIV
 NSCSOL, Athens
 NAVSTA, GINO
 Raytheon Services Corp.
 USS PIEDMONT (AD 17)
 USS SIERRA (AD 18)
 USS YOSEMITE (AO 19)
 USS SHENANDOAH (AD 26)
 USS PUGET SOUND (AD 38)
 USS SYLVANIA (AFS 2)
 USS CONCORD (AFS 5)
 USS SAN DIEGO (AFS 6)
 USS VULCAN (AR 5)
 USS GRANO CANYON (AR 28)
 USS YELLOWSTONE (AD-41)

Activity or Ship

USS CARL VINSON (CV 70)
 USS FULTON (AS 11)
 USS HOWARD G. GILMORE (AS 16)
 USS ORION (AS 18)
 USS HUNLEY (AS 31)
 USS HOLLAND (AS 32)
 USS SIMON LAKE (AS 33)
 USS CANOPUS (AS 34)
 USS L.Y. SPEAR (AS 36)
 USS EMORY S. LAND (AS-39)
 USS FORRESTAL (CV 59)
 USS SARATOGA (CV 60)
 USS INDEPENDENCE (CV 62)
 USS AMERICA (CV 66)
 USS JOHN F. KENNEDY (CV 67)
 USS NIMITZ (CVN 68)
 USS DWIGHT D. EISENHOWER (CVN 69)
 USS IWO JIMA (LPH 2)
 USS GUADALCANAL (LPH 7)
 USS GUAM (LPH 9)
 USS INCHON (LPH 12)
 USS FRANK CABLE (AS-40)

WEST COAST AND PACFLT AN/UYK-5(V) SYSTEMS

Activity or Ship

DPSC/PAC, ALAMEDA
 ***CONSUBPAC
 ***DPSC/PAC, San Diego
 COMBAT/STECHSOLSCOM,
 Vallejo
 ***NTC, San Diego
 NOAA, Seattle
 USS DIXIE (AD 14)
 USS PRAIRIE (AD 15)
 USS BRYCE CANYON (AD 36)
 USS SAMUEL COMERS (AD 37)
 USS MARS (AFS 1)
 USS NIAGARA FALLS (AFS 3)
 USS WHITE PLAINS (AFS 4) (YOKO)
 USS SAN JOSE (AFS 7)
 USS AJAX (AR 6)

Activity or Ship

USS HECTOR (AR 7)
 USS JASON (AR 8)
 USS SPERRY (AS 12)
 USS PROTEUS (AS 19)
 USS DIXON (AS 37)
 USS MIDWAY (CV 41)
 USS CORAL SEA (CV 43)
 USS RANGER (CV 61)
 USS KITTY HAWK (CV 63)
 USS CONSTELLATION (CV 64)
 USS ENTERPRISE (CVN 65)
 USS OKINAWA (LPH 3)
 USS TRIPOLI (LPH 10)
 USS NEW ORLEANS (LPH 11)

MARINE AIRCRAFT WING AN/UYK-5(V) SYSTEMS

Activity

DMAG-46 PENDELTON
 FOURTHMAW NEW ORLEANS
 MAG-11 EL TORO
 MAG-12 IWAKUNI
 MAG-13 EL TORO
 MAG-14 CHERRY PT.
 MAG-15 IWAKUNI
 MAG-16 SHINTA ANNA
 MAG-24 KANEONE

Activity

MAG-26 NEW RIVER
 MAG-29 NEW RIVER
 MAG-31 BEAUFORT
 MAG-32 CHERRY PT.
 MAG-36 FUTEMA, OKINAWA
 VMGR-252 (MWSG-27) CHERRY PT.
 MWSG-37 EL TORO
 MWS-1 IWAKUNI

*Four systems at this facility; initial in dates: 5/66, 5/67, 9/67 and 10/68.

**Shipboard installation pending; system being refurbished by NAVSEC/NORDIV.

***Two systems at these facilities.

Storing--inventory location control of stocked material in support of future user requirements for maintenance and repair.

Issuing--validating customer requirements, verifying availabilities, dispensing, and expending material for end-user requirements.

Shipping/transferring/selling--transfer and invoice documentation and processing of material movements.

Financial management/accounting--recording, monitoring, and controlling fund obligations and expenditures; processing and reporting of financial transactions in support of fiscal requirements and in management assistance of effective resource utilization.

Inventory management--maintaining inventory records and files, managing stock levels, evaluating inventory stock statuses, and collection and reporting of stock inventory transactions for general inventory control processes.

SUADPS in general is a system which was designed to assist operational fleet units in fulfilling their responsibilities with respect to logistics, inventory and financial management. A detailed listing of SUADPS key mission support and functional capabilities is provided as Appendix A [Ref. 7, p. 2-3 through 5].

The structure employed by SUADPS for execution of its afloat supply and accounting responsibilities has evolved into maintenance of data in four major and sixteen minor tape files. Appendix B provides a listing of all twenty files. The four major SUADPS tape files are the Master Record File (MRF), the Requisition Record File (RQN), the Numbers File (NBR), and the Financial Master File (FMF). A brief description of each is as follows.

The Master Record File (MRF) is the basic inventory file. The MRF contains a variable length record for each item

stocked or requisitioned onboard ship. Each record contains identification and quantitative data required for the inventory management of the item [Ref. 3, p. 2-5].

The Requisition Record File (RQN) serves a dual purpose. It is an active history file of all outstanding and completed requisitions not yet transferred to the Requisition History File (a minor file) and a collection file for Maintenance Data Systems (MDS) related transactions (both supply and maintenance) [Ref. 3, p. 2-13].

The Numbers File (NBR) contains a record of stock number changes and cross reference data [Ref. 4, p. 3-11].

The Financial Master File (FMF) consists of a series of data tables and counters containing monetary amounts (running totals) and other accounting information required to be maintained by the ship [Ref. 4, p. 3-12].

C. SUADPS SYSTEM PROCESSING

SUADPS operates as a sequential batch processing automated system. All SUADPS files are kept current through the application of card and tape input transactions into an update process. Input data are collected and applied to the applicable system files through a periodic update process. The frequency of updates will be at the discretion of the Supply Officer; however, in order to maintain current records, a minimum of five updates per week is recommended [Ref. 3, p. 2-41].

Under the modular concept, each definable requirement is programmed in a self-contained software component or module.

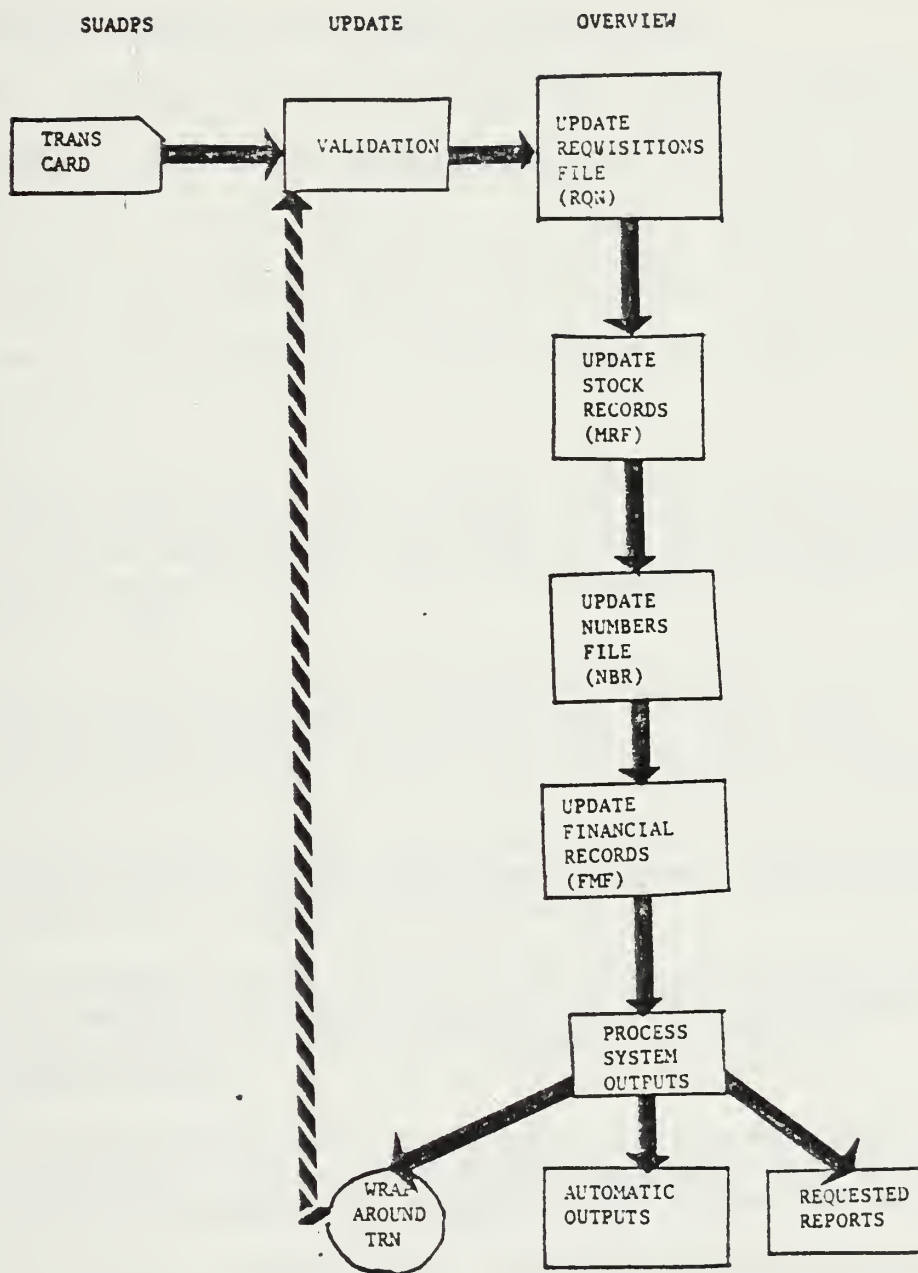
All modules are united and governed by an executive component known as SUADPS [Ref. 3, p. 1-3]. This programming design allows a single update to include a wide variety of different transactions and requests for processing concurrently (i.e., requisitions, issues, receipts, status, inventory counts, requests for management aids or reports, etc.).

Every update flows through a standardized procedure of sequential file processing. Input documents are collected and held in suspense files awaiting a SUADPS batch update. Exhibit 5 provides a simplified overview of a SUADPS update process. As shown on Exhibit 5, all SUADPS input is first subjected to a validation process and then sequentially processed through the four major files in the following order: first, updating the Requisition File, then the Master Record File to the Numbers File, and finally the Financial Records File. Upon completion of the actual file correction and revision processing, automatic and requested reports are furnished for management reviews and actions. In actuality, the update process is an extremely complex software program, and as such is provided in detail by Appendix C.

The four distinct types of updates scheduled by the Supply Officer are designated as a Daily, Weekly, Monthly, or Yearly. All four types of updates essentially serve to revise and correct the major SUADPS files. However, the different updates (progressing from a Daily to a Yearly) call for additional successive summarizations of file records

EXHIBIT 5

SUADPS Update Overview



for internal management aids and external required reports. The management aids and reports associated with financial aspects will be reviewed later in Chapter IV.

D. SUADPS HARDWARE AND OTHER APPLICATIONS

The computer hardware responsible for the operation of the SUADPS software programs possesses the Navy designation AN/UYK-5(V). It is, however, of a UNIVAC design and is also known as a UNIVAC model 1500 (U-1500). The basic computer system consists of the following [Ref. 4, p. 2-1 through 3]:

- Digital Data Computer Central Processor (U-1218)--a general purpose, solid state, digital computer with a 16,384 word memory expandable to 32,768 words, an 18 bit word length, and a 4 microsecond read/write cycle time.
- Digital Data Recorder-Reproducer (U-1240)--a four tape drive unit utilizing seven track 1/2 inch tape with tape density of 200 or 556 bits per inch and read/write speeds of 112.5 ips and 225 ips respectively.
- Input/Output Keyboard Printer (U-1533)--an operator communications link with the computer with a print speed of 10 characters per second.
- Card Reader-Punch (U-1549)--an input or output unit for reading or punching computer cards with read/punch speeds of 400 and 200 cards per minute respectively.
- Data Processing Line Printer (U-1569)--the primary output unit for printed format computer information with an average print speed of 450 lines per minute.

The peripheral equipment generally consists of auxilllary punch card equipment and keypunch/verifier equipments.

The physical operation of this mainframe centralized computer system is the responsibility of the Automated Data

Processing Division of the Supply Department. Although this computer hardware is exclusively managed and operated by the Supply Department, SUADPS is not the only software program the computer system runs. Aboard a Submarine Tender the computer hardware is responsible for time-sharing three distinct customers: Executive Department Administrative Programs, Repair Department Intermediate Maintenance Management Programs (IMMS), and Shipboard Uniform Automated Data Processing Systems (SUADPS). Therefore, these three distinct applications require varying operational procedures, controls, and operator expertise in their actual utilization. The computer hardware system could operate software programs ranging from dental screenings to submarine workload repair schedules, and even financial management reports all within a single day time period.

E. SUADPS FUTURE PLANS

At the onset of this thesis research, the author was only aware of a plan to correct some of the SUADPS associated hardware. The plan was called Shipboard Non-Tactical Automated Data Processing Program (SNAP). However, further research has shown that this program includes application aspects which will radically change the operations of the SUADPS system. This section of the thesis discusses major changes of SUADPS relative to SNAP.

In order to explain the future plans of the SUADPS system, a certain amount of history of Shipboard Non-Tactical

Automated Data Processing Program (SNAP) as it is related to SUADPS is considered necessary. In 1976 a simple program to procure selected hardware units as partial replacements for some of the outmoded hardware in the AN/UYK-5(V) system was established. This program has since been accomplished in FY 1981/82, replacing the Digital Data Recorder/Reproducer and the Data Processing Line Printer with newer technology and increased capacity similar hardware. The most significant changes were those of an increase in the Recorder/Reproducers' write speed to 325 ips and an increase in the Line Printers' average print speed to 1000 lines per minute.

During the formulation of this initial program, SUADPS users expressed concern that additional improvements beyond those proposed would ultimately be required. During a fleet review, the automated environment within the support fleet was shown to be characterized by [Ref. 7, p. 2-10]:

1. ADP systems restricted by inefficient use of large volumes of printed data and keypunch/card oriented data updates
2. obsolete sequential processing involving large tape library files
3. continual processing backlogs from:
 - a. inability of ADP personnel to keep pace with the keypunch workload
 - b. excessive computer downtime from overworked hardware and associated maintenance support problems
 - c. inability of the printer to keep pace with the print workload
4. extensive system operational run time from software design restrictions imposed by the small 16K memory

5. both Central Processing Unit and software application saturation from ever-increasing shipboard material inventories and maintenance requirements of complex modern equipments
6. unreliable tape drives and printers due to operational requirements in excess of original design specifications .

As a consequence of the findings of the fleet review, the scope of the SNAP program was amplified to more completely replace the antiquated hardware with a general purpose computer system possessing upgraded technological advances and capabilities. Still further operational reviews of the fifty-six major fleet support units (AD, AFS, AR, AS, AS(FBM), CV, LPH, and LHAs) and seventeen Marine Aircraft Groups (MAG) displayed serious deficiencies in SUADPS procedures and application software capabilities. The need for an interactive disk-based real-time processing support was promoted as essential for current and future fleet readiness. With this new requirement, the scope and detailed objectives of the SNAP program were once again significantly expanded. The SNAP program then began to expand in an effort to include both improvements in SUADPS hardware by actual unit replacements and in SUADPS software by incorporation of "Real-Time" programming.

With the SNAP program well underway, surveys of the majority of the Navy's smaller ships indicated that their operations were also under a very heavy administrative and management burden. Current fleet operations required labor intensive manual efforts even though significant automated

management technologies were available. In 1978, the CNO approved yet another scope increase to the SNAP program for this automated support to smaller fleet units.

The restructuring of the SNAP program was completed to consist of:

SNAP I--Upgrade ADP for the major support ships

Phase 1

- replace the AN/UYK-5(V) hardware weak links of tape drives and line printers

Phase 2

- replace the CPU and other peripherals with modularly expandable third generation systems
- redesign application programs to exploit SNAP capabilities (particularly real time programs)
- fully integrate logistics support
- provide standard ADP for other non-tactical management information systems

SNAP II--Provide ADP for the smaller Naval ships

- replace manual operations with automated
- reduce the administrative workload
- fully integrate logistics support

As specified by OPNAVINST 5230.16, the overall concept of the SNAP program is that: "A standard automated information system will be utilized by all fleet operational and direct support units, afloat and ashore." The automated hardware systems (not procured to date) will most likely be entirely different between SNAP I and SNAP II. However, the functional interfaces and software will incorporate the concept of interoperability.

In an effort to comply with the CNO objective number 5 (FY 1980), which was to alleviate the administrative burden on the fleet, extensive software application programs are being researched. Currently the SNAP program has projected to automate current procedures utilizing revised SUADPS software real-time programming in the three major areas of:

SUPPLY

- supply and financial records (SUADPS)
- food service
- retail ship store operations
- inventory control (SUADPS)

MAINTENANCE

- preventive maintenance system (PMS)
- maintenance support systems
(IMMS, OMMS, AIR-3M)
- technical library operations
- support and test equipment

ADMINISTRATIVE

- administrative and word processing
- PASS and disbursing operations
- medical and dental operations
- training support

The increased hardware capabilities projected in SNAP I Phase 2 should alleviate a significant amount of the previous constraints. The simple sequential batch processing tape-oriented, 16K memory hardware system is being replaced on

the Submarine Tenders with an "A" configuration displayed in Exhibit 6. Hardware acquisitions to support the entire Naval fleet as projected in the SNAP program is shown in Exhibit 7.

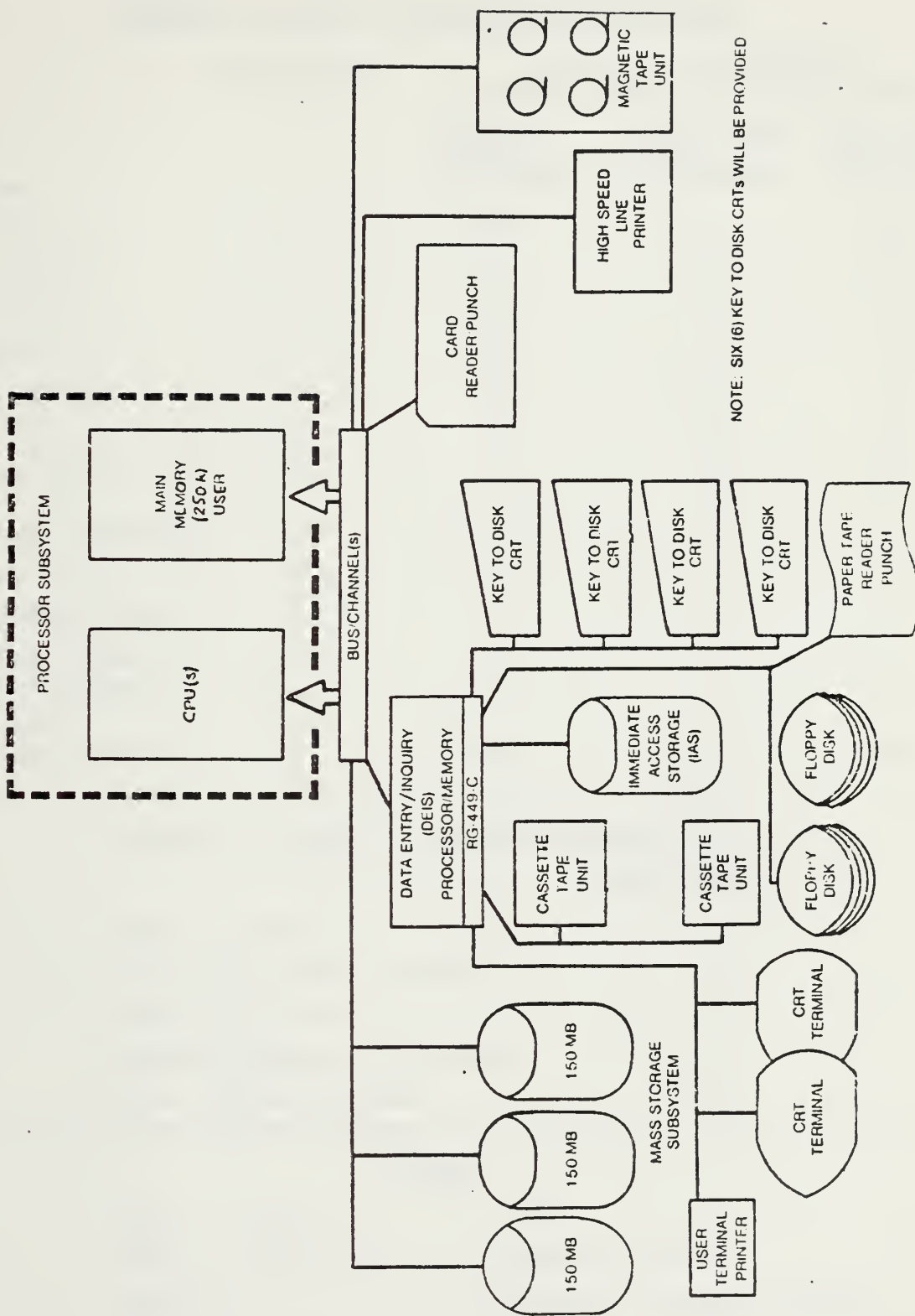
As part of the SNAP program, the most extensive changes that will ultimately affect the SUADPS financial information and control system are those associated with the redesign of the entire SUADPS software for a real time capability. The new SUADPS system is projected to have both an on-line mode or batch data generation alternatives.

This software redesign is designated SUADPS Real Time (SUADPS-RT). The interfaces associated with SUADPS-RT are highly complex (see Exhibit 8) but similar to the original SUADPS software design. SUADPS-RT, as compared to SUADPS, reflects changes mostly directed at providing a unified data base for real time accessibility vice batch processing of separate tape files of the original SUADPS design. Exhibits 9 and 10 are provided for two views of this newly proposed SUADPS-RT system. This change will also effect a much closer customer and SUADPS interface due to the primary input by end users via cathode ray tube (CRT) hardware terminals. End use customers requesting file inquiries will be on a real time basis. However, input requiring data base updating will be at the direction of the overall SUADPS-RT system operators with options of either on-line or batch processing.

The specific objectives of the projected SUADPS real time software (SUADPS-RT) which relate to financial information

EXHIBIT 6

SNAP I "A" Configuration ADPE



NOTE: SIX (6) KEY TO DISK CRTs WILL BE PROVIDED

EXHIBIT 7

SUMMARY OF SNAP I HARDWARE ACQUISITION

	Activities (# of)	Specific Equipments (1 Basic System plus the below)		
		<u>Video Terminal</u>	<u>Video Term w/Printer</u>	<u>Low Speed Printer</u>
Ships				
AD	10	40	36	10
AFS	7	24	20	10
AR	4	36	32	9
AS	5	59	57	13
AS (FBM)	7	62	60	13
CV	13	77	70	21
LPH/LHA	12	41	34	12
Marine Air Groups	17	27	27	13
Shore Sites	23	?	?	?
Training Sites	3	?	?	?
Central Design Activities	1	?	?	?
Total Installations	102	3405	3122	830

SUMMARY OF SNAP II HARDWARE ACQUISITION

	<u>Activities (# of)</u>
Ships, current	384
Ships, new construction	68
Training Sites	17
Central Design Activities	<u>2</u>
Total Installations	471

COSTS

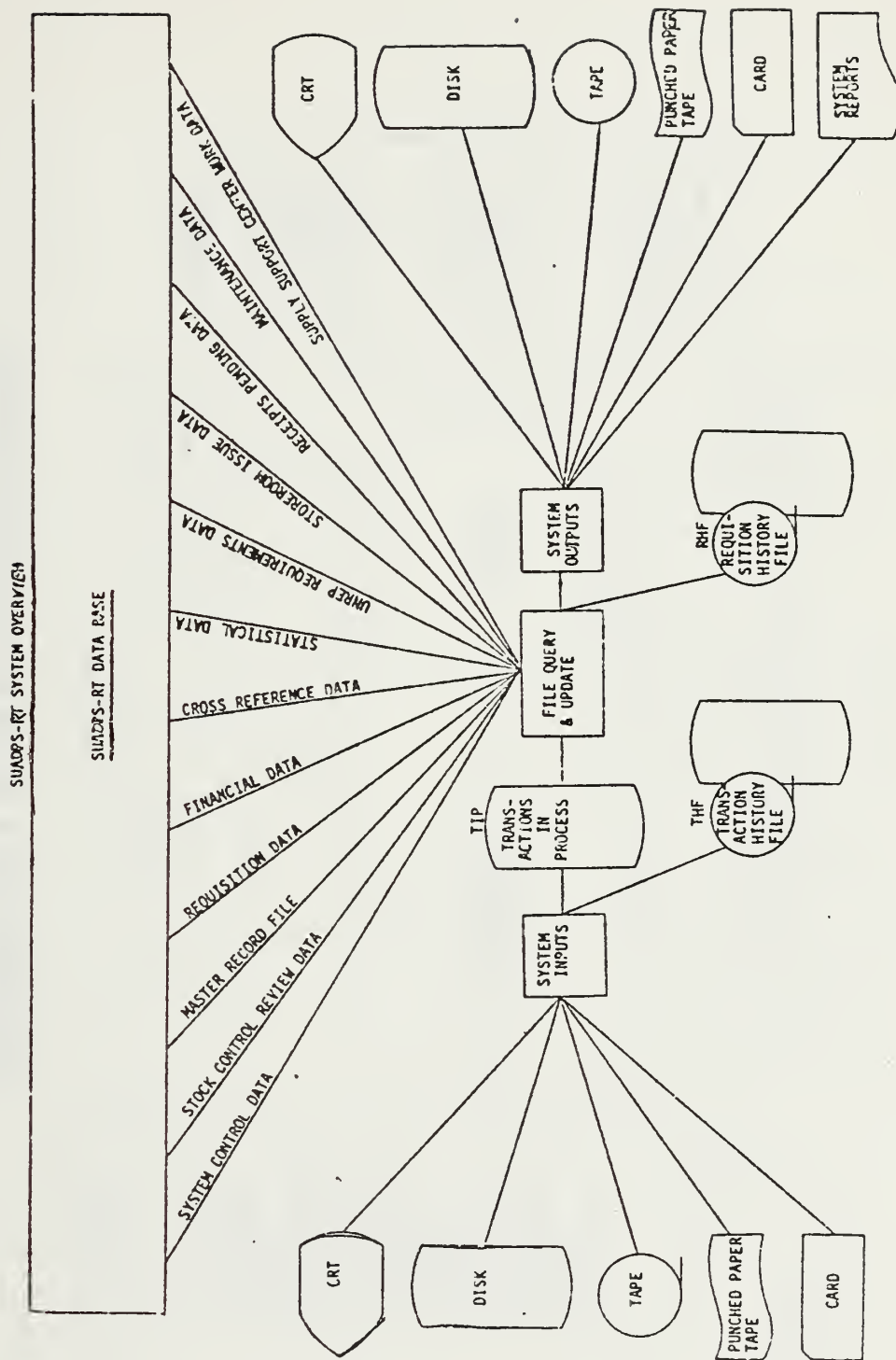
SNAP I, Phase I	\$ 8M
SNAP I, Phase II	178M and rising
SNAP II	150M and rising rapidly

SUADPS-RT Organizational/Transaction Interfaces



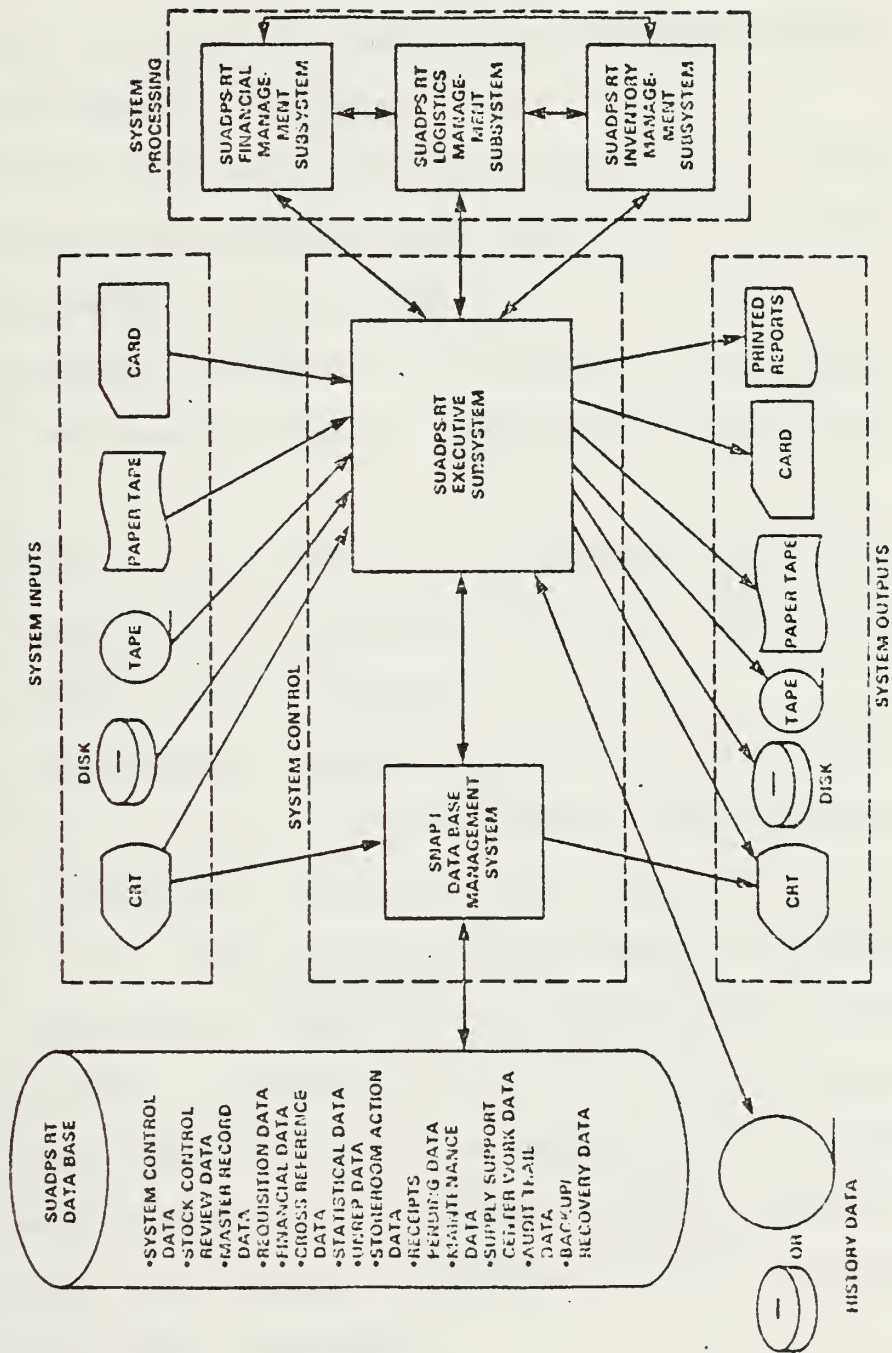
EXHIBIT 9

SUADPS-RT System Overview



SUADPS-RT System Overview

SUADPS-RT SYSTEM OVERVIEW



and control functions as established by its functional description are [Ref. 7, p. 2-7]:

- a. Reducing the amount of time and effort required to accomplish supply transactions and to access information by automating repetitive and time-consuming supply support functions.
- b. Improving utilization of fleet operations and maintenance funds by more timely accounting and validation of outstanding requisitions.
- c. Significantly improving the accuracy, consistency, and timeliness of supply, maintenance, and financial data.

The specific objectives of the SUADPS-RT system with respect to improving all functions of SUPPLY reprinted from Ref. 8 are enumerated in Appendix D.

SUADPS-RT redesign in general appears to be little changed from the content of the original SUADPS software concepts of inventory, logistics, and financial management (see Exhibit 11). With respect to the specific financial management functions of SUADPS-RT, a more detailed content chart is provided in Exhibit 12. In the author's opinion, the major improvement potential for SUADPS-RT is centered in the reduction of manual interfacing efforts currently associated with the original SUADPS design and the faster real time processing capability.

The milestones for the SNAP I Phase 2 Program indicate Submarine Tenders are projected for initial implementation

SUADPS-RT BUSINESS FUNCTIONS VISUAL TABLE OF CONTENTS (VTOC)

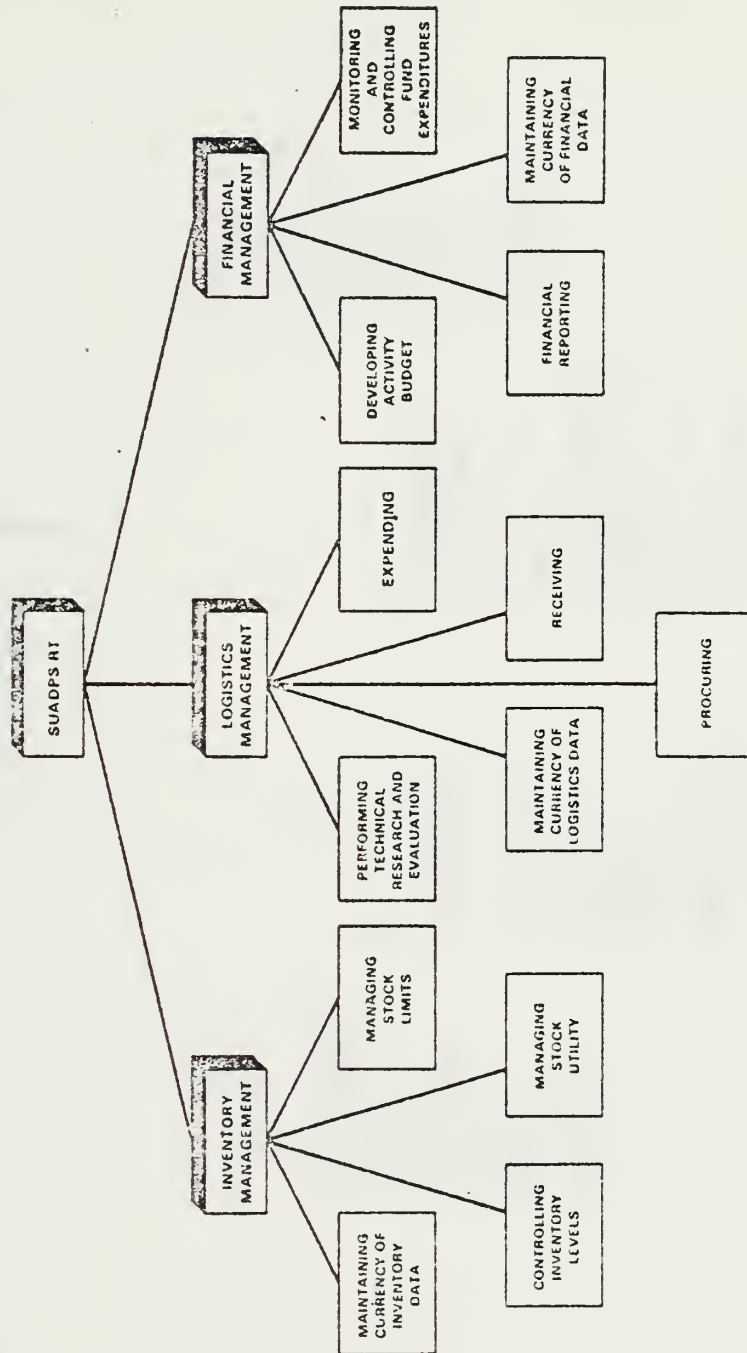
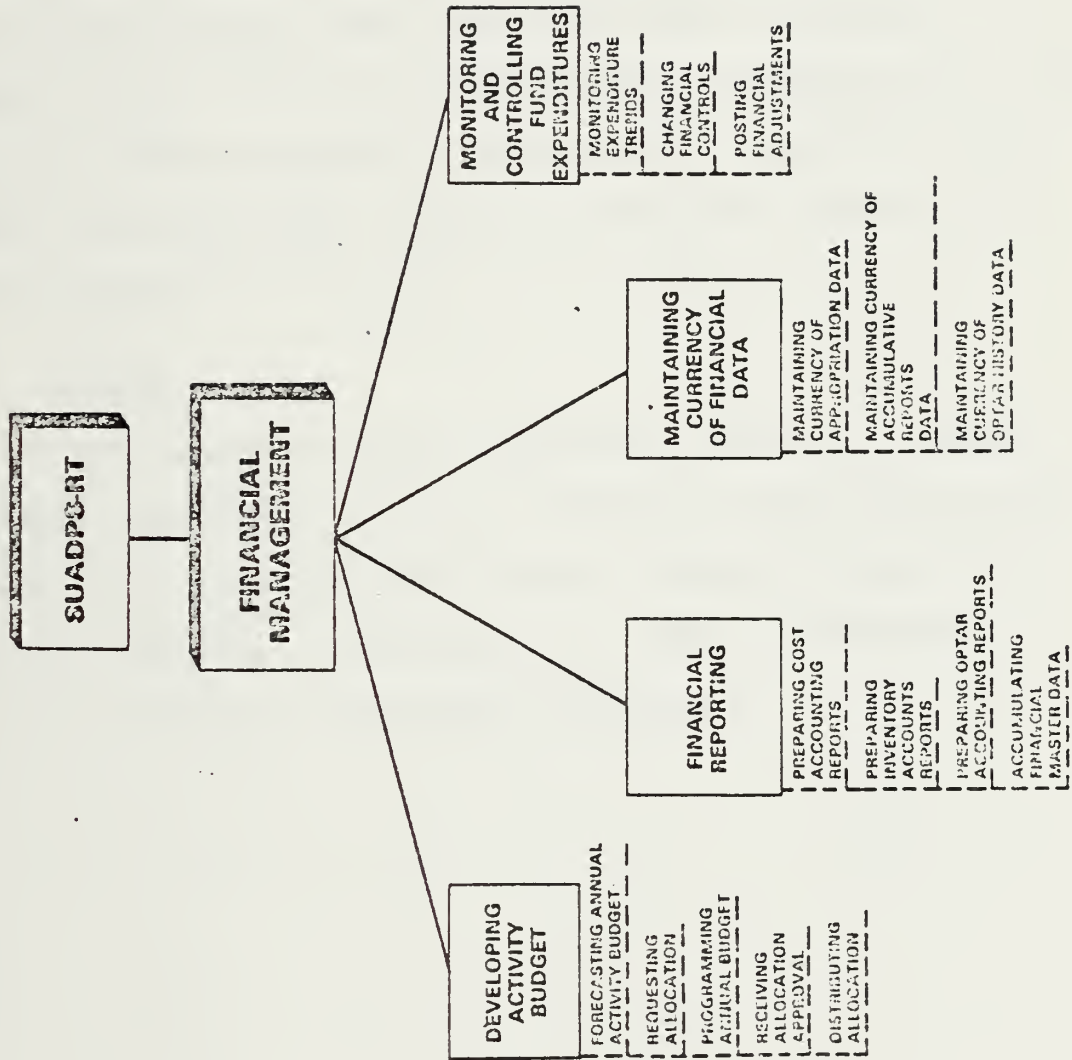


EXHIBIT 12

SUADPS-RT Financial Functions



sometime in Fiscal Year 1983 or 1984. Exhibit 13 provides additional detail on these milestone plans. Since SNAP II applies only to smaller Naval ships and not to Submarine Tenders, Exhibit 14 is provided for information only. A simplified version of SUADPS-RT software is projected for all smaller Naval ships within the SNAP II Program. The SNAP Program, and its revised software SUADPS-RT as a portion of the overall project, is scheduled for usage by the U.S. Navy Operating Fleet through a life cycle ending in the next century.

F. SUMMARY

This chapter provides a general overview of SUADPS' system objectives, history, framework, operational procedures, and plans for the future. The next chapter will review SUADPS as it pertains to a specific Submarine Squadron/Tender operational environment.

EXHIBIT 13

SNAP I OVERALL MILESTONES

PHASE I MILESTONES

ADS PLAN APPROVAL	DEC 78
RFP ISSUED	MAY 78
CONTRACTS AWARDED	SEP 78
INSTALLATION OF PERIPHERIALS	APR 79
COMPLETED	MAY 80

PHASE II MILESTONES

ADPE ADS PLAN APPROVED	DEC 78
IMMS ADS PLAN APPROVAL	JUL 80
SUADPS ADS PLAN APPROVAL	AUG 80
GSA DPA	DEC 79
RFP SENT OUT	DEC 79
NO BIDS	JUN 80
RFP RE-ISSUED	SEP 80
PROPOSALS RECEIVED	JAN 81
BENCHMARKS CONDUCTED ON THREE FINALISTS	AUG 81
RFP AMENDMENT ISSUED	OCT 81
SDP MILESTONE II APPROVAL	SPRING 82
NEGOTIATE CONTRACT AWARD	SPRING 82
FIRST ARTICLE DELIVERY	AWARD + 4
INSTALL, TEST FIRST ARTICLE	AWARD + 5
EVALUATE, ACCEPT	AWARD + 6
START PRODUCTION DELIVERIES (A)	AWARD + 8
START PRODUCTION DELIVERIES (B)	AWARD + 20

EXHIBIT 14

SNAP II OVERALL MILESTONES

MENS APPROVAL BY ASN(FM)	JUNE 1980
PROPOSED FUNCTIONAL DESCRIPTION (FD)	OCTOBER 1980
INITIAL PROGRAM MANAGEMENT PLAN	OCTOBER 1980
SDP MILESTONE I APPROVAL BY ASN(FM)	NOVEMBER 1980
PROTOTYPE TESTS COMPLETION	DECEMBER 1980
NAVSEA EVALUATION OF SBA 8(a) REQUEST	JANUARY 1981
DRAFT SYSTEM IMPLEMENTATION PLAN	FEBRUARY 1981
INTEGRATED FUNCTIONAL DESCRIPTION COMPLETION	MARCH 1981
FREEZING OF INITIAL SOFTWARE	MARCH 1981
CONGRESSIONAL INQUIRY BY BROOKS COMMITTEE	APRIL 1981
TYCOM REVIEW OF INITIAL SOFTWARE PACKAGE	APRIL 1981
OSD HEARINGS	MAY 1981
GAO PROGRAM REVIEW	JUNE 1981
ISSUING OF RFP AND STARTING OF PROGRAMMING	JULY 1981
INITIAL INSTALLATIONS SCHEDULE COMPLETION	AUGUST 1981
RFP ACCEPTANCE BY SBA	SEPTEMBER 1981
SYSTEM DECISION PAPER FOR MILESTONE II	OCTOBER 1981
ADPE CONTRACT	NOVEMBER 1981
DRAFT NAVY TRAINING PLAN	DECEMBER 1981
HARDWARE BENCHMARK	JANUARY 1982
ANNOUNCE HARDWARE SELECTION	FEBRUARY 1982
DELIVER HARDWARE TO CDA	MARCH 1982
INITIAL SOFTWARE RELEASE OPERATIONAL TEST	APRIL 1982
CONDUCT RELIABILITY/MAINTAINABILITY/ AVAILABILITY DEMO	MAY 1982
CONDUCT SITE SURVEYS ON INITIAL PRODUCTION INSTALLATION SHIPS	JUNE 1982
COMPLETE FIRST ARTICLE DATABASE/INITIATE DATA ACQUISITION	JULY 1982
CDA COMPLETE APPLICATIONS SOFTWARE CONVERSION	AUGUST 1982
CONDUCT SURFACE FIRST ARTICLE TEST (AFLOAT)	SEPTEMBER 1982
IMPLEMENT FOUR (4) SYSTEMS PER MONTH	FISCAL YEARS 1983 and 1984

III. SUBMARINE SQUADRON/TENDER ORGANIZATION AND FINANCIAL OPERATIONS

Organizational structure is one of the oldest and most thoroughly studied concepts in the area of management science. However, organizational structures are generally less than perfect. A certain amount of organization ambiguity, inconsistency, and conflict seems to be inevitable. Generally an organizational structure is an arrangement of activities and resources in a framework conducive toward its overall objectives and goals. Therefore, organizational structure should not be over-looked in a review of the financial management area of the SUADPS operational environment. This chapter deals with the elaboration of specific organizational relationships, operations, and funds involved in fiscal management of submarine forces.

A. FINANCIAL RESOURCES AVAILABLE TO A SUBMARINE SQUADRON/TENDER

The financial resources available to a Submarine Squadron/Tender are highly varied. These funding sources fall within four separate appropriation categories: Military Personnel Navy (MPN), Other Procurement Navy (OPN), Navy Stock Fund (NSF), and Operations and Maintenance, Navy (O&M,N). Military manpower costs associated with personnel assignments to the Submarine Squadron/Tender are funded from the MPN appropriation. Industrial plant equipment and other similar

costly operating equipments in support of Submarine Tenders' repair missions are funded from the OPN appropriation. The initial cost of inventory in support of the Submarine Tender's supply mission is funded by the NSF. All operating budgets required by the operating squadron staff, assigned submarines, and submarine tenders for material and services applied or consumed in accomplishing their tasks or missions are funded by the O&M,N appropriation.

The SUADPS system is involved with the fiscal accounting and control of NSF and O&M,N appropriations. However, the Navy Stock Fund and related inventory management aspects of SUADPS are beyond the scope of this thesis and will not be reviewed further. The emphasis of this study is on the operational afloat end user operating budgets within the Operations and Maintenance Navy (O&M,N) appropriation only.

Within the O&M,N appropriation further funding breakdowns to separate operational budgets designated specifically for Supply and Equipage (S&E) or Repair of Other Vessels (ROV) fiscal resources are generally effected. ROV funding is only provided to tenders or repair ships to fund the cost of material and outside contracted services requires in the performance of their industrial repair mission. S&E funding is general purpose resources provided to all cost centers for their own ships' usage fulfilling day-to-day operating, maintenance, and administrative requirements (repair parts, services, equipage, and consumables).

B. SUBMARINE SQUADRON/TENDER ORGANIZATION AND ASSOCIATED FUNDS FLOW

Within the Resource Management System (RMS), operational funding for the submarine force is provided along the chain of command structure. The SUADPS environment studied within this thesis review was that of a portion of the U.S. Pacific Fleet Submarine Forces. For the Pacific Fleet Submarine Tenders, Operation and Maintenance, Navy (O&M,N) funds are passed from the Secretary of the Navy to the Chief of Naval Operations to the Commander in Chief, Pacific Fleet, to the Commander Submarine Force Pacific Fleet (COMSUBPAC). COMSUBPAC in turn passes funding to its applicable Submarine Squadron Commanders. Three separate Submarine Squadrons were the immediate seniors in the chain of command to the Submarine Tenders contacted for this thesis. Submarine Group Five (COMSUBGRU 5) and Submarine Squadron Three (COMSUBRON 3) are responsible for the Submarine Tenders in San Diego, CA., the USS DIXON (AS-37) and the USS SPERRY (AS-12) respectively. Submarine Squadron Fifteen (COMSUBRON 15) is responsible for the Submarine Tender in Guam, M.I., the USS PROTEUS (AS-19). After receipt of funds from COMSUBPAC, the Squadron Commanders issue authority to spend the O&M,N appropriation dollars in the form of Operating Targets (OPTARs) to themselves, their supporting tender and their assigned submarines.

The Submarine Tender then acts as the Squadron Accounting Activity through the use of its computer and SUADPS system. In this capacity the Submarine Tender performs the

official accounting function for itself, as well as the Squadron or Group Staff, and all of the Squadron's assigned submarines.

The overall Submarine Tender financial responsibilities with respect to funding have been specified by COMSUBPAC as: "Although the OPTAR amounts granted do not constitute a legal limitation within the meaning of the Revised Statutes, Section 3679, they do represent target amounts which may not be exceeded" [Ref. 9, p. 1-1]. Herein lies at least one reason for the need of an effective SUADPS financial control system, that of fiscal compliance.

The SUADPS financial information and control system is responsible for the funds status reports of each of these separate fund categories. The SUADPS financial managerial reports are specifically responsible for providing the financial status of S&E funds (supplies and equipage costs for own ship, squadron, and supported units), ROV funds (repair of vessels cost for own ship and supported units as a whole), and any reimbursable funds as appropriate. In this way each tender utilizing SUADPS is responsible not only as the accounting activity but also as the centralized source of both internal financial informational management needs and external reporting requirements.

To appreciate the magnitude of Submarine Squadron/Tender funding levels associated with SUADPS financial control system responsibilities, Exhibit 15 is furnished. Within the

Fiscal Year 1981 Funding Categories & OPTAR Levels

	<u>USS SPERRY (AS-12)</u>	<u>USS DIXON (AS-37)</u>	<u>USS PROTEUS (AS-19)</u>
A. S&E (Tender)	\$ 1,345,000	\$ 2,012,000	\$ 2,196,000
B. ROV (Tender)	571,000	1,111,000	3,490,000
C. ROV (Supported Units)	4,102,000	2,995,000	1,037,000
D. Reimbursables (Tender)	—	7,200	—
Tender Sub-Total	6,018,000	6,125,200	6,723,000
E. S&E (Squadron Staff)	110,000	130,000	255,000
F. S&E (Combined Total for all Supported Units)	4,689,000	3,565,000	—*
Grand Total	\$ 10,817,000	\$ 9,820,200	\$ 6,978,000

* Supported Units' accounting records have been transferred. During FY 1980 and 1981 all USS PROTEUS supported units were phased out of their strategic forces mission and were subsequently reassigned or decommissioned. The USS PROTEUS has now converted from a AS(FBM) to an AS. No specific supported unit responsibilities have been reassigned to date. CONSUBRON 15 was also disestablished in FY 1982 as a result of the supported units' transfers.

categories of funds designated E and F in Exhibit 15 each squadron and ship is assigned an individual OPTAR for S&E such that the Commanding Officer retains the responsibility for control of his fiscal obligations. The tender would additionally hold OPTARs for ROV (own ship and total other supported units). For the purposes of SUADPS financial responsibilities, the funds flow stops here; accounting for each squadron, staff and individual submarine is the lowest level of funds breakdown. However, within the Submarine Tender itself (funds designated by A through D in Exhibit 15), internal OPTAR funds are further divided into Departmental and even to Divisional allotments utilizing the SUADPS system. These internal OPTARs are individually managed by Repair Parts Petty Officers (RPPOs) who act as divisional or departmental representatives to the Submarine Tender's financial information and control system. The supported submarines may employ the same sort of control (relating to departmental OPTARs) but do so manually.

C. ROLE OF THE FLEET ACCOUNTING AND DISBURSING CENTER

Although the Supply Department of the Submarine Tender is responsible for the operation of the SUADPS system in its role as the Squadron Accounting Activity, still further accounting assistance is ultimately required. For customer requisitions (generated within the entire squadron) filled by the Submarine Tender's inventory stocks, the SUADPS system creates internal obligations and expenditures from these

demands in internal OPTAR records and reports this data to the Fleet Accounting and Disbursing Center (FAADC) as facts. For those customer requisitions (generated with the entire squadron) not available from the Submarine Tender inventory, the Fleet Accounting and Disbursing Center (FAADC) becomes very much involved.

Whenever external requisitions are submitted from the Submarine Tender, or other members of the squadron, to the outside supply system, the billings and charges for these materials are sent to FAADC by the issuing activity. These same transactions should also be reported in SUADPS as obligations for outstanding material by the tender. FAADC performs an accounting matching process between receipts reported by the SUADPS system of the Submarine Tender and the material charges reported by the external supply system as applicable to the Submarine Tender, Squadron, or supported units. Any discrepancies are investigated and assigned to the responsible activity in the form of OPTAR adjustments through FAADC difference listings. As an example, common discrepancies are those associated with quantity differences or price adjustments.

Just as the SUADPS system has priority for corrective adjustments to RPPD internal OPTAR records from internally generated requisitions, FAADC has priority over corrective adjustments to SUADPS OPTAR records from external requisitions. FAADC additionally receives all Submarine Squadron/Tender SUADPS Budget OPTAR Reports, adds known in-process

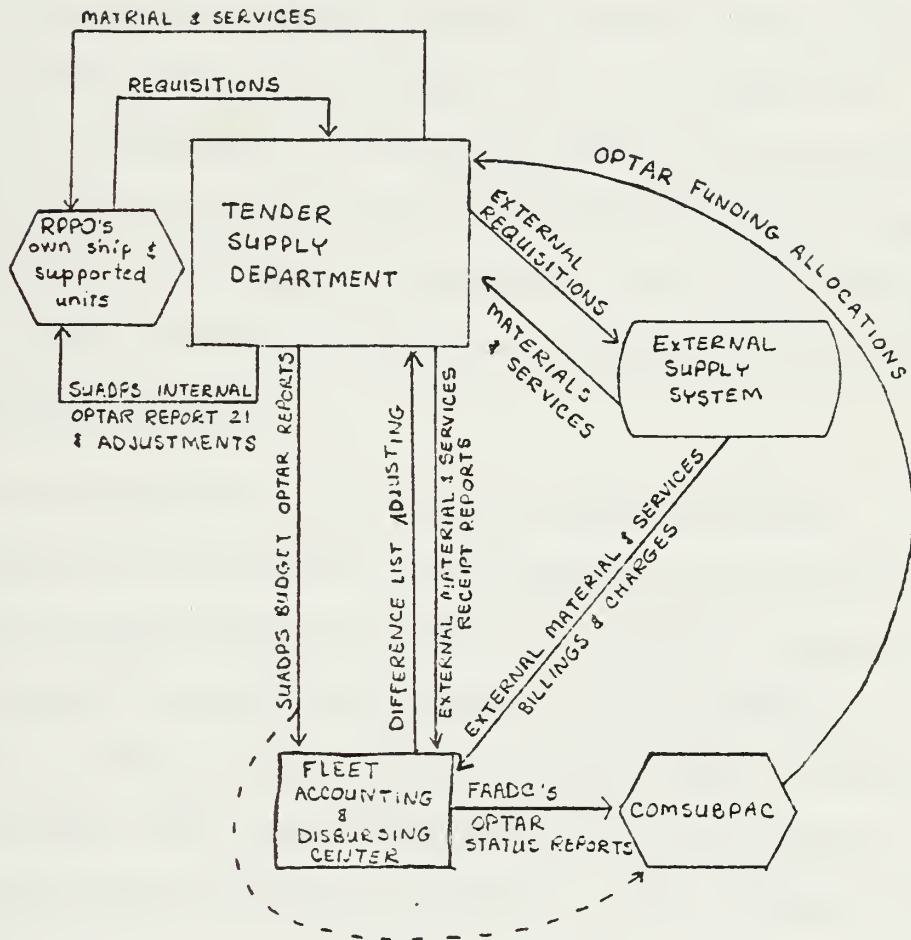
adjustments and reports these OPTAR statuses to the associated Type Commander. Exhibit 16 provides an accounting system overview of this process and portrays the roles of the various players.

D. SUMMARY

This chapter examines the organization relationships, structure, and key players involved in the SUADPS financial operations. The following chapter will more specifically review the SUADPS reports and management aids as they pertain to the operational end users of the SUADPS system for financial management purposes.

EXHIBIT 16

ACCOUNTING SYSTEM OVERVIEW



IV. ACCOUNTING, CONTROLLING, AND REPORTING PRACTICES UNDER SUADPS

SUADPS is an automated software system utilized by major Naval afloat units for supply and accounting functions. However, all automated systems require manual interfacing, not only for input but for interpretation of output and ultimately for assistance in decision making by operational users. This chapter is provided to delineate some of these SUADPS and manual interfaces to show how they work together and relate in an integrated system for financial accounting and management purposes.

A. GETTING A TRANSACTION INTO SUADPS FINANCIAL FILES

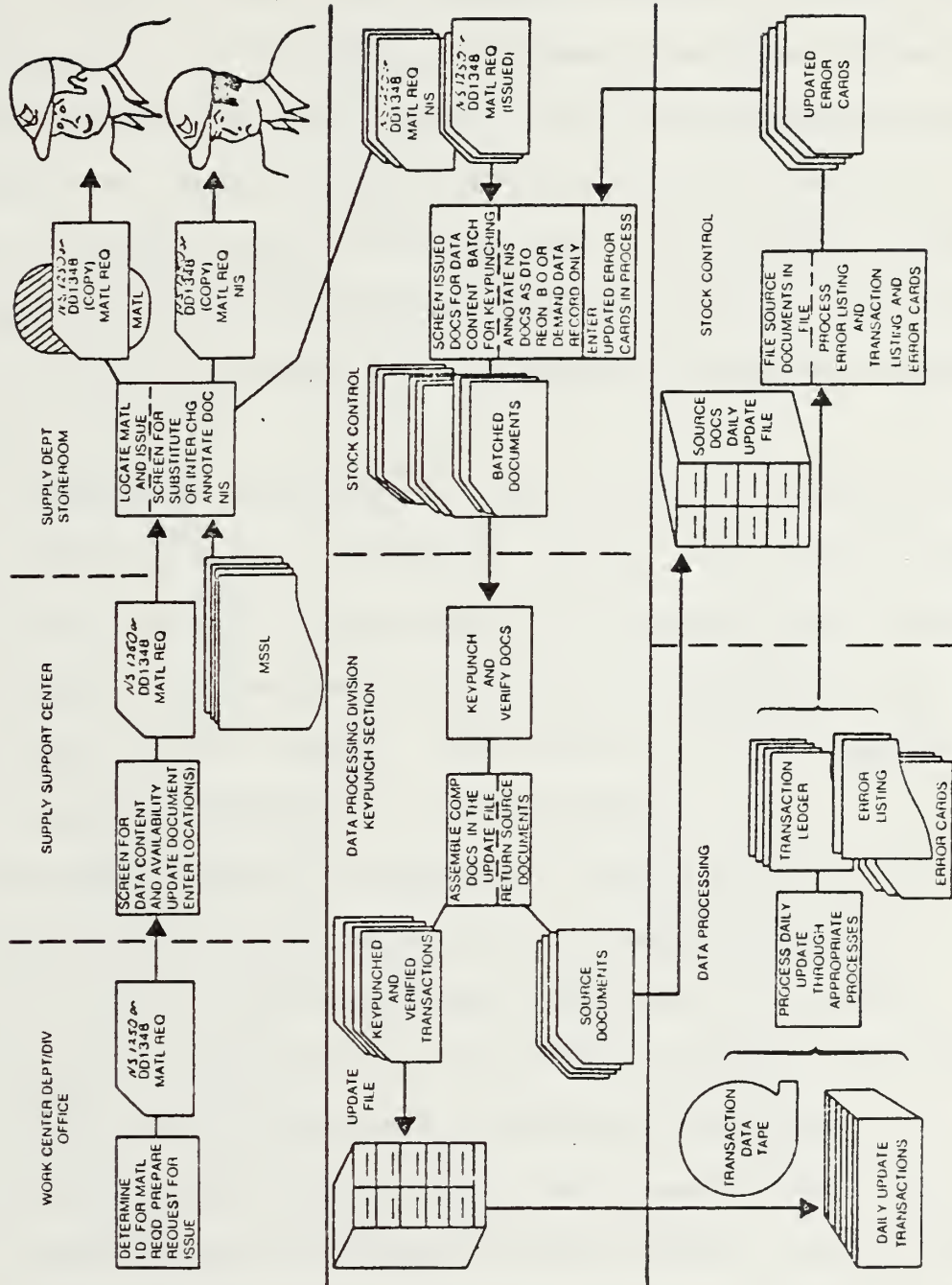
To provide an operational understanding of the manual and automated interfacing involved in the SUADPS system, a simplified requisitional flow process will be related in this section. A Repair Parts Petty Officer (RPPO), acting as his divisional work center representative, initiates all of his division's material requests. After preparation of the requisition and manually recording the document in his Divisional OPTAR Log, the request for issue is then submitted to the Submarine Tender's Supply Department. Here the Supply Support Division of the Supply Department verifies that the data elements of the requisition have been properly annotated. Onboard material availability information is also reviewed through the use of the tender's

inventory printout called the Master Stock Status Listing (MSSL). If the material is not carried by the tender, or is unavailable from the tender's inventory stock, then the requisition is submitted directly to the Supply Department's Stock Control Division. The Stock Control Division in turn prepares an external requisition, submits it to the outside supply system and refers this transaction (by means of a duplicate copy) for input into the SUADPS accounting system. If the material is available onboard the tender, the requisition is submitted to Stores Division of the Supply Department for issue. A copy of the issue documentation is forwarded to the Stock Control Division (after issue) for input into the SUADPS system.

The Stock Control Division verifies all data input content, batches these documents together and submits them to yet another division of the Supply Department designated as the Automated Data Processing Division (ADP) for input to the SUADPS records. These source documents are keypunched and verified by the ADP Division and returned to the Stock Control Division for verification. Once verified and all corrections are accomplished, these keypunched input transactions are held in an update file for the next scheduled update. The ADP Division is then responsible for processing the actual update on the computer hardware and forwarding the output reports back to the Stock Control Division for their subsequent review, correction, or distribution. Exhibit 17 is provided for a visual overview of the requisitional

EXHIBIT 17

Request for Issue Functional Flow



REQUEST FOR ISSUE FUNCTIONAL FLOW - SUADPS - EUI/207

flow process. The receipt process involved in the SUADPS system is also similar in complexity and Supply Department processing (see Exhibit 18).

At the basic level most automated computer systems function similarly. Essentially, a system of machine hardware executes an input of data through a set of processing steps (software) to compare, add or subtract units of data while keeping a running tally of the process. This input, process, and output system generally entails the assessing and processing of data into a format for management interpretation and actions.

The financial processing of data is one of the last steps in the SUADPS software processing routine. By design this would appear to be for the purpose of insuring that the maximum accuracy and timeliness of financial information are accomplished in each update. The details of this process can be observed in Exhibit 5 and Appendix C.

The SUADPS financial segment is described as "by far the most complex and therefore potentially most confusing" [Ref. 4, p. 4-3]. This statement was found to be quite accurate in its assessment of the SUADPS financial process. An initial survey by the author revealed that there are twenty-one different format types for financial data input which, when subject to a SUADPS update process, could result in more than three hundred potential types of errors in the initial validation step alone. A brief summary listing of these errors is provided in Appendix E.



Four specific output files are automatically generated from any type of SUADPS update; transaction listings, transaction error listings, suspended transaction listings, and information transaction listings. Transaction listings are defined as "a history of all transactions processed successfully...listings provide an audit trail for reconstructing actions" [Ref. 3, p. 2-20]. The transaction error listing contains input transactions that did not pass the validation process and therefore failed to process during the update. An important caution indicates "transactions appearing on the error listing must be corrected and reinput during the next update since they do not appear on the transaction ledger and the computer maintains no record of them" [Ref. 4, p. 3-15]. Exhibit 19 provides a sample transaction error listing. The suspended transaction listings are defined as:

containing transactions which do not have invalid data fields or data elements but which could not process because of certain conditions which exist in the stock records. The suspended transactions will appear on the suspended transaction listings for a maximum of 15 updates... . If the condition is not corrected within the 15 update period, the transaction is deleted from the suspended transaction listings and appears on the transaction error listings. [Ref. 3, p. 2-20]

Exhibit 20 provides a sample suspended transaction listing. The information transaction listings contain transactions for possible management attention provided for management review and possible action. Exhibit 21 provides a sample information transaction listing.

EXHIBIT 19

Transaction Error Listing

SOT	860	TRANSACTION ERROR LISTING	24 Apr 1981
AOANNZK4320002168783	EA00001V0471210292461	V05851KY6 2HLF505	SS 1 0024000 MKNR 3 250

AOANNZ4320002168783	EA00001V0471210282459	V05851KY6 2HLF505	SS 1 0024000 MKNR 3 250

AOENNZ0260	EA00001V0F8E110290601	ACC 9CLK512	4 003000 MKNR 3 250

AP1S9G 5970001661681	CN0005V0471200871470	9G	085 MKNR 5 5
	*****	**	
AS1S9GK5977003833354	ER00006V0471202880249	081	MKNR 19

AOANN7U8415002668692	PR0000V0585110266A01RY05851ACG	SOLF505	1 0002610V MKNR 151 15
	**	***** **	
NC9 9510005962031	FT 11 9510015962032	JCCL20001 F	AA ** MKNR 225
X09 13110001585981	EA 00010	1 ADDLCC	MKNR 30

X13 15840000072759	EA00001 058F11114	270518 YE14N	4 MKNR 76
X31 17510010224973	EA00002V058510353D469	CC 9QCALENDAR81	SH01 0000088V MKNR 14 24

X31 17510010224973	EA00003V0585103514289	CC 9QCALENDAR81	SH01 0000088V MKNR 14 24

X31 17510010244025	EA00006V0585103470266	CC 9QCALENDAR W	SSEC 0000008V MKNR 14 24

X31 15999000053196	EA00001V0585110946A02NY5142	CH	V MKNR 15
	**		
X31 15330003002055	EA00003V2078403120571RV0581	CR 87	P 0002565V MKNR 19 24

X31 15999000047763	5A00100V0585110936A03NV0471	CG	V MKNR 151 15
	**	***** **	
X32 15845000057978	EA00100V0585110626A10 Y2020 Y6	270507	V MKNR 15
	**		
X39NNZ15315004966249	EA00001V0585103620186	KZ1902	00189 MKNR 176

X50	V0585110606A00	CG	00005000V MKNR 15
	**		
X71 16505001182347	BX00005V0471203450696	05851 KZ 91	04606 MKNR 14

X71S9G15977003833354	EA00006V0471202880249	05851 KZ 8G	0000392V MKNR 14

X71NNZ15310000137326	00002V0585102590199	KZ 9Z	0003500V MKNR 30 18 56
	**	*****	

EXHIBIT 20

		SOT 860		SUSPENDED TRASACTION LISTING		24 APR 1981 UPDATES UNTIL ERR				
X31	10108LE5012820	P000003V058510346D260	CC	11NSUP	12	SQ00	0000170V***	MKNR	24	10
X41	1520000596711	EA00003VD58510339C150	C2	9QPLIERS,SLI	SE00	0000462V***	MKNR	24	260	8
X31	15975000742072	HD00200V058510336FC83RY05851	CG	9C		0000172V***	MKNR	24		
X31	14320001255933	EA00007V0572303420890RV05851	CR	9C		0028451V	MKNR	24	244	13
X31	15940001434777	EA00179V058510344C142RY05851	C2	9C	P	0000007V***	MKNR	24	260	9
X31	15305001440344	EA00023V058510337FC21RY05851	CT	9Z	P	0000004V***	MKNR	24		9
X31	17530001450416	BX00004V058510339D848RY05851	CC	9Q		0003120V***	MKNR	24		8
X31	17350001708330	BX00072V0572303300786RV05851	CC	9Q		0001081V***	MKNR	24		10
X31	18105001817899X3EA00150V058510333FF13RY05851	CG	1H	P	0000020V***	MKNR	24			9
X31	15330001978491	FT00100V058510340C155RY05851	C2	9Z		0000026V***	MKNR	24	260	8
X31	17930002052870	GL00006V0585103396879	CC	9QWAX FLOOR	SBUL	0000249V***	MKNR	24		8
X31	19150002359062	DR00004V0515003500731RV058FL	CR	9C		0017341V	MKNR	24		13
X31	17900002406358	EA00003V058510333C587	CC	9QBRUSH, DUST	SG01	0000244V***	MKNR	24		11
X31	17920002406358	EA00007V0515003470722	CC	9QBRUSH, DUST	SG01	0000244V***	MKNR	24		10
X31	17920002406358	EA00002V0585103445158	CC	9QBRUSH, DUST	SG01	0000244V***	MKNR	24		9
X31	17920002406358	EA00001V058510346A275	CC	9QBRUSH, DUST	SG01	0000244V***	MKNR	24		10
X31	18415002687859	PR00010V0585103375134RY05851	CC	9D		0000741V***	MKNR	24		9
X31	17110002688675	EA00012V058510352D27RY05851	CC	9D		0000299V	MKNR	24		13
X31	15120002930032	EA000C2V058510352A721	C2	9QPLIERS	SE01	0000350V	MKNR	24	260	13

EXHIBIT 21

SOT 860		INFORMATION TRANSACTION LISTING		24 APR 1981	
AC1NVZS9330002650481	R000003V0585101351083RY1114	AKZ	9GGJ005228	MKNR	50 50 50 50 50 50
AE1NNZU5977003833354	EA00006V0471202880243 V05851		CGNNZ	MKNR	56
AF1NNZ4MVC	FA00001 0585100730284 1114	AKZ	9GGF512354	MKNR	50 50 50 50 50 50
AU1GW0	GL00002V0471201121948		092	MKNR	56
INFO RCD	14470003070415X3 USE LOCAL C/N CHG UI FROM EA IC PG			MKNR	
X11	15977000075286 EA00097 058511114 220046	9G	LOSS	MKNR	244
X38	14935000075349 EA00001N6279210701601	2S	1H N62783	MKNR	244
X71GSA15120092401412	EA00002V0471203080297A 0581	KZ	9Q	MKNR	300
			0001362		1,321.14
			012700N		1,270.00
			0000845V		

The validation process of a SUADPS update, although extensive, cannot be relied upon to catch every possible error condition. A miskeypunched quantity or price, for instance, would fulfill all requirements of the validation process and process against the financial master file but actually still be in error. Once these types of problems are discovered, an adjustment to the records must be accomplished through a reversal transaction. A reversal transaction requires the identical coding of the input document with an eleven zone overpunch in card column 25. This method of correction is inordinately time-consuming. However, the correction of financial records in SUADPS is specifically designed for narrowly defined corrections for financial record security purposes. Access to the actual financial tables for corrections can only be effected through Naval Maintenance and Supply Systems Office management assistance teams, again for the purposes of reducing possible fraudulent actions. To summarize, the corrections of the Financial Master File are relatively much more difficult by design in relation to the other major SUADPS files.

B. FINANCIAL REPORTS AVAILABLE IN SUADPS

SUADPS operates in a mode wherein financial reports are generated only upon specific request. Thus demanded reports are scheduled on a periodic basis for management support of financial decisions and control actions. A daily financial

update request will produce the following financial management reports:

Report 21	Commanding Officer's Budget Report
Report 21	Departmental Budget Report
Report 21	Divisional Budget Report
Report 21	Supported Unit Budget Report
Report 22	Listing of End Use Differences between obligated and expended amount
Report 23	Detail listing of prior year's transactions
Report 24	Message Report of Credits
Report 46	Availability Cost Report

A weekly financial update request will provide all reports generated in a daily update with the addition of an inventory management report not germane to this thesis. A monthly financial update request will provide all reports generated in a weekly update plus the following additional financial reports:

Report 20	Unfilled Order Summary
Report 41	(NAVCOMPT 2157) Supported Units Budget OPTAR Report
Report 42	(NAVCOMPT 2157) Reimbursable Budget OPTAR Report
Report 47	(NAVCOMPT 2157) Own Ship's Budget OPTAR Report
Report 48	NSA Financial Summary Report

A yearly financial update request will provide all reports generated in a monthly update but additionally will conduct a closing out process in preparation for the next fiscal year.

Exhibit 22 provides a summary of the daily and weekly financial update reports. Exhibit 23 provides a summary of the monthly and yearly OPTAR reports. Exhibits 22 and 23 are concerned with only the SUADPS financially related report outputs as per the emphasis of this thesis. However, to demonstrate the complexity of the entire SUADPS monthly output reports for both the inventory/resupply and the financial management functions, Appendix D is provided.

SUADPS' financial information and control system functions for the fund status area are accomplished through the SUADPS Reports 21, 41, 42, and 47. The four Report 21s (Budget Reports) and the combination of Reports 41, 42, and 47 (Budget OPTAR Reports) contain the exact same financial status information but in different formats. The Budget Reports are designed for internal managerial performance assistance whereas the Budget OPTAR Reports are designed for external reporting requirements of fiscal compliance.

The Availability Cost Report 46 is a management-oriented report for ROV funds only. This report is a funds status report displaying ROV costs as a function of a ship's availability or refit. For each distinct period of time an individual ship is assigned for Submarine Tender Repair Work, ROV costs are accumulated. As an example, a Fleet Ballistic Missile Submarine on a 105-day operational cycle (70 days deployed and a 35-day refit) has, on the average, three to four refits per fiscal year. Therefore, in a squadron

EXHIBIT 22
DAILY OR WEEKLY FINANCIAL REPORTS

A. Report 21 - Divisional Budget Report (Current FY)

1. Prior to distribution, the Stock Control Division reviews for large dollar amounts that could be erroneous. Reversals are prepared as necessary. Actions are annotated on the original and filed.
2. Two copies to the applicable divisions as applicable with instructions for error reviews.

B. Report 21 - Department Budget Report (Current FY)

1. Prior to distribution, the Stock Control Division reviews for large dollar amounts that could be erroneous. Reversals are prepared as necessary. Actions are annotated on the original and filed.
2. One copy is distributed to each Department Head as applicable for their review.

C. Report 21 - Commanding Officer's Budget Report (Current FY)

1. Prior to distribution, the Stock Control Division balances the identified ROV funds with those identified on Report 46 Corrections. Corrections are annotated on the original and filed.
2. One copy is provided to the Stock Control Officer, the Supply Officer, and the Commanding Officer for their review.

D. Report 22 - List of End Use Differences

1. The Stock Control Division reviews the report for differences between obligated and expended amounts with emphasis on continuing services requisitions for increases or decreases to obligations. The original is filed for a later review against the Summary Filled Order Expenditure Difference Listings.
2. One copy is provided to the Open Purchase Service Desk for balancing actions against the Open Purchase Log.

E. Report 23 - Detail List of Prior Fiscal Year Transactions

1. Prior to distribution, the Stock Control Division reviews for large dollar amounts that could be erroneous. Reversals are prepared as necessary. Actions are annotated on the original and filed.
2. Two copies to the applicable divisions as applicable with instructions for error reviews.

F. Report 24 - Message Report of Credits (AS/AS (FBM) Only)

1. The Stock Control Division prepares a message to Report credits to Type Commanders and FAADC when thresholds are reached.

G. Report 46 - Availability Cost Report

1. The Stock Control Division balances the identified ROV funds with those identified on the Commanding Officer's Report 21. Action are annotated on the original and filed.
2. One copy is provided to the Supply Officer, Repair Officer, and Squadron Supply Officer for their review.

EXHIBIT 23
MONTHLY OR YEARLY FINANCIAL REPORTS

- A. REPORT 21 - Divisional Budget Report (Current FY)
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- b. Report 21 - Depart Budget Report (Current FY)
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- C. Report 21 - Commanding Officer's Budget Report (Current FY)
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- D. Report 22 - List of End Use Differences
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- E. Report 23 - Detail List of Prior Fiscal Year Transactions
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- F. Report 24 - Message Report of Credits
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- G. Report 46 - Availability Cost Report
 - 1. Review, audit and distribute in accordance with daily or weekly financial report procedures.
- H. Report 20 - Unfilled Order Summary
 - 1. The Stock Control Division reviews the transmittal number and transmittal amount against the NAVCOMPT 2157 for both tender's and support units UICs in the current FY and 6 months of the prior FY.
 - 2. This report is then utilized to prepare the NAVCOMPT 2156 submission to FAADC.
- I. Report 41 - Budget OPTAR Report NAVCOMPT 2157 for Supported Units
 - 1. The Stock Control Division reviews the current FY against the applicable Report 21. Additionally, prior FY allowances and balances are reviewed for significant changes.

- J. Report 42 - Budget OPTAR Report Reimbursable OPTAR NAVCOMPT 2157
 - 1. The Stock Control Division reviews the current FY against the applicable Report 21.
- K. Report 47 - Budget OPTAR Report Own Ships NAVCOMPT 2157
 - 1. The Stock Control Division reviews the current FY against both the applicable Report 21 and the Report 46.
- L. Report 48 - NSA Financial Summary
 - 1. The Stock Control Division balances this report against the NAVCOMPT 2157's and submits the information in accordance with Type Commander instructions.

composed of eight supported units, the Report 46 would show, as a minimum, twenty-four separate cost breakouts per fiscal year, reflecting each refit conducted by the tender. Exhibits 24 and 25 are provided as examples of Availability Cost Reports (Report 46) for Supported Units and Non-Supported Units, respectively.

Financial SUADPS Reports 20, 22, 23, 24, and 48 were not considered pertinent to the material presented in this thesis and as such will not be scrutinized further.

C. INTERNAL FINANCIAL REPORTS UNDER SUADPS

1. Submarine Tender Financial Management Reports

The only SUADPS report that is normally distributed to operational managers of the ship is the Budget Report or the Report 21. All other SUADPS reports are used either for external reporting purposes or within the Submarine Supply Tender's Supply Department for internal supply management purposes. The Report 21 applies to current fiscal year funds only and is available for management at three different levels with the command hierarchical structure. The Report 21 is designed for management at the Divisional, Departmental, and Commanding Officer hierarchical levels. Each Division acts as a cost center reporting to a Department Head who in turn reports to the Commanding Officer. Therefore, the successively higher level management reports are simply summarizations of the financial information pertaining to lower level cost centers.

EXHIBIT 24

Availability Cost Report for Supported Units

USS L YSPEAR AS36		V05851				AVAILABILITY COST REPORT			30 APR 1981	FISCAL YEAR; 1980
REF HULL NO	UIC	OBLIG FYTD	EXP FYTD	TOT OBL/EXP FYTD	OBLIG CUR MO	EXP CUR MO	TOT OBL/EXP CUR MO			
AAA ASR 013	04712	72,157.78	111,501.02	183,658.80	.00	.00	.00			
AAAB SSN 661	05142	33,368.12	59,128.76	92,486.88	.00	.00	.00			
AAC SSN 663	05144	7,402.12	31,723.46	39,125.58	.00	.00	.00			
AAC SSN 664	05145	32,019.77	121,592.49	153,612.26	.00	.00	.00			
AAF SSN 667	05149	3,507.45	16,543.96	20,051.41	.00	.00	.00			
AAF SSN 668	05150	18,276.56	70,451.44	88,728.00	.00	.00	.00			
AAG SSN 670	05192	832.20CR	15,624.82	14,792.62	.00	.00	.00			
AAH SSN 673	05164	3,359.99	138,431.65	141,791.64	.00	.00	.00			
AAI SSN 675	05703	15,760.50	150,621.66	166,382.16	.00	.00	.00			
AAJ SSN 679	20042	8,828.00	8,727.06	17,555.06	.00	.00	.00			
AAK TWR 001	31755	2,992.50	9,422.56	12,415.06	.00	.00	.00			
AAN ACR 22	20144	.00	268.00	268.00	.00	.00	.00			
AQN SSN 689	20203	3.51	59,544.29	55,547.80	.00	.00	.00			
AQP SSN 695	20786	25.00	2,117.00	2,142.00	.00	.00	.00			

EXHIBIT 25

Availability Cost Report for Non-Supported Units

USS LYSPEAR ASS36		Y05851		AVAILABILITY COST REPORT		30 APR 1981		FISCAL YEAR 1980	
REF	HULL NO	UIC	OBLIG FYTD	EXP FYTD	TOI DOL/EXP FYTD	OBLIG CUR MO	EXP CUR MO	TOI DOL/EXP CLR MO	
NAA	ACGS 02	01936	1,624.73	35,028.38	36,653.11	.00	.00	.00	.00
NAA	SSN 588	02021	2,649.72	11,959.86	14,609.58	.00	.00	.00	.00
NAC	SSN 669	02151	6,457.50	11,466.29	17,923.79	.00	.00	.00	.00
NAC	SSN 653	02140	1,247.05	36,194.76	37,441.81	.00	.00	.00	.00
NAC	SSN 685	20347	.00	124.81	124.81	.00	.00	.00	.00
NAF	SSN 694	20785	3,736.73	17,660.26	21,396.99	.00	.00	.00	.00
NAG	SSN 627	05101	.00	111.77	111.77	.00	.00	.00	.00
NAB	SSN 636	05110	.00	1,739.10	1,739.10	.00	.00	.00	.00
NAT	SSN 627	04130	25.00	4,098.94	4,123.94	.00	.00	.00	.00
NAJ	SSN 681	20044	50.00	1,394.83	1,444.83	.00	.00	.00	.00
NAK	ACR 14	04713	2,111.00	23,869.16	25,980.16	.00	.00	.00	.00
NAL	AG 153	03954	.00	178.63	178.63	.00	.00	.00	.00
NAP	AS 18	04628	.00	42.00	42.00	.00	.00	.00	.00
NAN	DSV 1	54941	.00	54.00	54.00	.00	.00	.00	.00
NAS	SSN 686	20350	.00	41.64	41.64	.00	.00	.00	.00
NAT	SSN 650	05137	.00	2,695.38	2,695.38	.00	.00	.00	.00
NAV	SSN 689	20203	11,072.02	37,150.84	48,223.66	.00	.00	.00	.00
NAX	SSN 691	20782	1,938.80CR	6,941.04	5,002.24	.00	.00	.00	.00
NAY	SSN 693	20784	.00	.00	.00	.00	.00	.00	.00
NAY	SSN 695	20786	.00	717.52	717.52	.00	.00	.00	.00
NAZ	SSN 612	05170	362.98	13,310.17	13,673.15	.00	.00	.00	.00
NEA	L30 33	01153	.00	1,246.68	1,246.68	.00	.00	.00	.00
NBB	FF 1088	20064	.00	10,587.49	10,587.49	.00	.00	.00	.00
NBC	AFS 1	05831	.00	6,374.37	6,374.37	.00	.00	.00	.00
NBD	SSN 639	05132	9,357.57	21,956.24	31,313.81	.00	.00	.00	.00
NBE	CCM 77	20559	.00	203.84	203.84	.00	.00	.00	.00
NBF	FF 1069	54064	17.08	4,097.27	4,114.35	.00	.00	.00	.00
NCH	CCM 35	52112	52.93	10,343.00	10,395.93	.00	.00	.00	.00
NBI	FF 1074	54069	419.82	4,693.77	5,113.59	.00	.00	.00	.00
NBJ	FF 1045	54041	4,189.04	70,632.85	75,021.89	.00	.00	.00	.00
NBK	CV 64	03364	18.00	1,170.50	1,188.50	.00	.00	.00	.00
NBL	AOE 1	05832	.00	1,101.82	1,101.82	.00	.00	.00	.00
NBM	DD 975	20601	1,314.64	4,086.25	5,400.89	.00	.00	.00	.00
SUB TOTAL			42,967.81	341,273.53	384,241.34	.00	.00	.00	.00

The financial information in all three types of Report 21s is an output from the SUADPS Financial Master File with the intention of indicating the current financial status of the Division, Department, or total ship for managerial decision-making requirements concerning resource allocations. All three types of Report 21s, as update output reports, display the financial information in a summary format of opening and closing balances in the categories of:

1. Allocation
2. Obligations (outstanding)
3. Year-to-Date Expenditures
4. Gross Adjusted Obligations (cumulating)
5. Available Unobligated Balances

At the lowest operational level the Divisional Budget Report, in addition to furnishing the opening and closing balances as above, itemizes each input document processed during the update for the particular division that applies. Exhibit 26 is provided as an example of a Submarine Tender Repair Department's Machinery Division Report 21.

At the next managerial level, the Department Report 21 contains funds status summary financial information for each of its responsible Divisions. Exhibit 27 is provided as an example of a Submarine Tender's Repair Department Report 21. Note that the Divisional financial summary contained in Exhibit 26 is identifiable separately in Exhibit 27.

At the highest management level aboard ship, the Commanding Officer's Report 21 contains the funds status summary

Divisional Budget Report 21

USS I YSPER AS36

V05851

DIVISION BUDGET REPORT FOR PERIOD ENDING 30 APR 1981 TYPE OPTAR S-E
DIVISION NAME 54 R2A SE

ALLOCATION	OBLIGATIONS	YEAR TO DATE EXP	GROSS ADJ CPL	AVAILABLE BAL
00. BAL.	23,500.00	6,557.40	8,856.13	15,413.53
CL. BAL.	23,500.00	6,557.40	9,131.08	15,688.48
				7,811.52

C/I DOCUMENT NO.	STOCK/PART NO.	CFSCRIPTION	UI RI	FC CG PRI	BUIC REF	QTY	UNIT PRICE	TOTAL PRICE	ADJUSTMENT
X21 V058510345477	5210007432933	CALIFFR+MICR EA		C2 90		9	30.36	273.24	
X31 V058510345431	729006160109	DUSTPAN EA		CC 90		1	1.71	1.71	

Departmental Budget Report 21

USS L YSPEAR AS36 V05051

DIV. CODE & NAME	REPAIR	DEPARTMENT BUDGET REPORT FOR PERIOD ENDING 30 APR 1981				TYPE CFTBR	S+E
		ALLOCATION	OBLIGATIONS	YEAR TO DATE EXP	GROSS ADJ DEL		
47 R0 SE	OP. PAL. CL. PAL.	8,500.00 8,500.00	1,048.35 1,048.35	646.47 681.62	1,594.92 1,730.00		6,805.18 6,770.00
48 R8 SC	OP. PAL. CL. PAL.	5,000.00 5,000.00	160.28 160.28	716.19 716.19	876.47 876.47		4,123.53 4,123.53
51 R1 SE	OP. PAL. CL. PAL.	24,000.00 24,000.00	11,656.06 11,655.06	12,287.57 12,298.15	23,543.63 23,954.21		56.37 45.79
52 R5 SE	OP. PAL. CL. PAL.	22,000.00 22,000.00	8,659.09 8,659.09	10,665.42 10,670.15	19,324.52 19,129.28		2,675.48 2,670.72
54 R2A SE	OP. PAL. CL. PAL.	23,500.00 23,500.00	6,557.40 6,557.40	8,956.12 9,131.08	15,413.53 15,588.48		8,086.47 7,911.52
55 R2B SE	OP. PAL. CL. PAL.	11,000.00 11,000.00	1,237.18 1,237.18	4,459.12 4,522.37	5,735.31 5,759.45		5,263.69 5,240.55
56 R3 SE	OP. PAL. CL. PAL.	5,000.00 5,000.00	2,425.73 2,425.73	4,540.88 4,540.88	6,556.61 6,556.61		2,033.39 2,033.39
57 R4 SE	OP. PAL. CL. PAL.	3,000.00 3,000.00	527.10 527.10	1,256.67 1,256.67	1,793.77 1,793.77		1,206.23 1,206.23
58 R5 SE	OP. PAL. CL. PAL.	17,000.00 12,000.00	4,312.89 4,312.89	4,675.51 4,680.27	8,989.40 8,993.16		3,011.60 3,006.84
59 R7 SE	OP. PAL. CL. PAL.	24,000.00 24,000.00	18,348.50 18,348.50	1,067.98 1,067.98	15,416.57 15,416.57		4,582.43 4,582.43
6F 100ROV	OP. PAL. CL. PAL.	.00 .00	.00 .00	.00 .00	.00 .00		.00 .00
DEPARTMENT TOTAL	OP. PAL. CL. PAL.	142,000.00 142,000.00	54,542.67 54,542.67	49,211.06 49,565.32	104,154.53 104,408.00		27,845.37 37,492.00

financial information for all the tender's Departments in both fund categories of S&E and ROV resources. Additionally, each supported unit's financial status is provided for informational purposes only since the Submarine Tender's responsibility is limited to accounting and reporting. Exhibit 28 is provided as an example of a Commanding Officer's Report 21. Note that the Departmental financial summary in Exhibit 27 is also identifiable separately in Exhibit 28.

2. Supported Unit's Financial Management Reports

Each supported unit is responsible for the submission of advice of its financial obligations either directly or, if deployed, by message report to its parent Submarine Tender. The Submarine Tender, as the squadron/group accounting activity, is responsible for the actual accounting and reporting requirements as a service to its supported units. However, financial management and control responsibilities are retained by the Submarine's Commanding Officer. To assist in this responsibility, the Submarine Tender furnishes the Submarine its own individually tailored Budget Report 21. Its format is identical to that of a Submarine Tender's Divisional Report 21. Exhibit 29 is provided as an example of a Supported Unit Report 21.

D. SUMMARY

This chapter discusses in detail the basic level SUADPS financial management aids and reports available by design

Commanding Officer Budget Report 21

USS L YSPEAR AS36

V05851

COMMANDING OFFICER'S BUDGET REPORT FOR PERIOD ENDING 30 APR 1981

DEPT/UNIT	ALLOCATION	OBLIGATIONS	YEAR TO DATE EXP	GROSS ADJ CBL	AVAILABLE BAL
CENTRAL					
S+E	OP. BAL. 7,100.00	2,430.58	2,593.83	5,024.41	2,075.59
	CL. BAL. 7,100.00	2,430.58	2,593.83	5,024.41	2,075.59
ENGINEER					
S+E	OP. BAL. 172,672.00	36,889.86	103,527.20	140,427.06	32,244.94
	CL. BAL. 172,672.00	36,889.86	104,171.85	141,061.71	31,610.29
DIAMOND					
S+E	OP. BAL. 6,500.00	2,000.92	1,519.75	3,600.67	2,855.32
	CL. BAL. 6,500.00	2,000.92	1,556.93	3,637.85	2,862.15
CORESERVF					
S+E	OP. BAL. 30,728.00	.00	.00	.00	30,728.00
	CL. BAL. 30,728.00	.00	.00	.00	30,728.00
XO SE					
S+E	OP. BAL. 7,000.00	400.24	1,050.17	1,440.43	5,505.57
	CL. BAL. 7,000.00	400.26	1,095.15	1,495.41	5,504.59
IST LI.					
S+E	OP. BAL. 69,500.00	21,520.12	47,650.23	69,170.35	329.65
	CL. BAL. 69,500.00	21,520.12	47,726.91	69,247.03	252.97
MEDICAL					
S+E	OP. BAL. 20,000.00	7,347.82	11,554.47	18,902.29	1,057.71
	CL. BAL. 20,000.00	7,347.82	11,554.47	18,902.29	1,057.71
COMM					
S+E	OP. BAL. 19,000.00	3,277.03	6,975.96	10,252.99	7,747.01
	CL. BAL. 19,000.00	3,277.03	7,013.54	10,290.57	7,705.43
OPERATION					
S+E	OP. BAL. 4,500.00	591.57	2,916.86	3,608.43	851.27
	CL. BAL. 4,500.00	591.57	2,916.86	3,608.43	851.27
REPAIR					
S+E	OP. BAL. 142,000.00	54,542.67	49,211.96	104,154.52	37,845.37
	CL. BAL. 142,000.00	54,542.67	49,565.32	104,508.00	37,452.00
SUPPLY					
S+E	OP. BAL. 134,000.00	57,091.51	48,240.51	105,342.02	28,657.58
	CL. BAL. 134,000.00	57,091.51	48,281.49	105,353.00	28,637.00
CPO MESS					
S+E	OP. BAL. 4,000.00	741.70	1,034.26	1,775.96	2,224.04
	CL. BAL. 4,000.00	741.70	1,034.26	1,775.96	2,224.04
WIFE REP					
S+E	OP. BAL. 29,000.00	7,227.12	4,754.03	12,085.15	16,914.85
	CL. BAL. 29,000.00	7,227.12	4,765.02	12,092.15	16,907.85
ADMIN					
S+E	OP. BAL. 21,000.00	8,034.32	4,076.85	12,111.17	8,882.83
	CL. BAL. 21,000.00	8,034.32	4,079.84	12,111.20	8,885.80
OWN SHIP S+E TOTAL	OP. BAL. 666,000.00	202,765.48	205,180.08	487,945.56	178,054.44
	CL. BAL. 666,000.00	202,765.48	206,355.53	489,121.01	176,878.95
ENGINEER RCV(F)					
S+E	OP. BAL. 68,000.00	52,616.80	6,448.00	59,064.80	8,925.20
	CL. BAL. 68,000.00	52,616.80	6,448.00	59,064.80	8,925.20

COMMANDING OFFICER'S BUDGET REPORT FOR PERIOD ENDING 30 APR 1981

ISL LL	ROV(P)	OP BAL	1,000.00	.00	.00	.00	1,000.00
	CL BAL		1,000.00	.00	.00	.00	1,000.00
COMM	ROV(P)	OP BAL	3,000.00	677.99	1,560.16	2,238.15	761.85
	CL BAL		3,000.00	677.99	1,560.16	2,238.15	761.85
REPAIR	ROV(P)	OP BAL	205,000.00	194,841.54	129,581.51	324,423.05	19,418.49
	CL BAL		205,000.00	194,841.54	129,908.51	324,750.05	19,191.49
WEPS REP	ROV(P)	OP BAL	9,000.00	.00	.00	.00	9,000.00
	CL BAL		9,000.00	.00	.00	.00	9,000.00
ADMIN	ROV(P)	OP BAL	203,000.00	.00	.00	.00	203,000.00
	CL BAL		203,000.00	.00	.00	.00	203,000.00
ROVI	ROV(P)	OP BAL	117,000.00	77,836.20	37,059.44	114,895.64	2,104.36
	CL BAL		117,000.00	77,836.20	37,059.44	114,895.64	2,104.36
TAV	ROV(P)	OP BAL	158,000.00	118,183.44	52,990.87	181,174.31	23,815.69
	CL BAL		158,000.00	118,183.44	62,990.87	181,174.31	23,815.69
OWN SHIP NOV TOTAL(P)		OP BAL	864,000.00	444,155.97	237,639.94	681,795.91	182,204.05
	CL BAL		864,000.00	444,155.97	237,966.94	682,122.91	181,877.05
OWN SHIP TOTAL QVN PROG		OP BAL	1,530,000.00	645,921.45	522,820.02	1,169,741.47	360,258.53
	CL BAL		1,530,000.00	645,921.45	524,322.47	1,171,243.92	358,756.08
REPAIR	ROV(S)	OP BAL	5,000.00	734.63	3,607.87	4,342.50	657.50
	CL BAL		5,000.00	734.63	3,607.87	4,342.50	657.50
OWN SHIP NOV TOTAL(S)		OP BAL	5,000.00	734.63	3,607.87	4,342.50	657.50
	CL BAL		5,000.00	734.63	3,607.87	4,342.50	657.50
SUPPORTED UNITS							
04712	S-F	OP BAL	80,000.00	33,750.02	22,945.04	56,695.06	23,304.94
	CL BAL		80,000.00	33,744.39	23,025.14	56,769.53	23,230.47
05142	S-F	OP BAL	89,000.00	20,252.23	33,267.73	53,519.96	25,480.04
	CL BAL		89,000.00	20,252.23	33,267.73	53,519.96	25,480.04
02114	S-F	OP BAL	119,000.00	36,715.53	56,868.12	93,583.65	25,416.35
	CL BAL		119,000.00	36,715.53	57,567.06	94,282.59	24,717.41
05145	S-F	OP BAL	128,000.00	24,210.06	63,881.92	88,091.98	29,908.02
	CL BAL		128,000.00	24,210.06	67,827.10	92,037.16	35,962.84

COMMANDING OFFICER'S BUDGET REPORT FOR PERIOD ENDING 30 APR 1981

05149	S+F	OP. BAL.	103,000.00	796.43	57.35	853.78	102,146.22
		CL. BAL.	103,000.00	796.43	57.35	853.78	102,146.22
05150	S+E	OP. BAL.	118,000.00	45,486.71	31,417.29	76,904.00	41,096.00
		CL. BAL.	118,000.00	45,486.71	31,453.18	76,939.89	41,060.11
05152	S+E	OP. BAL.	107,000.00	37,441.25	37,126.95	74,568.20	32,431.80
		CL. BAL.	107,000.00	37,441.25	37,126.95	74,568.20	32,431.80
05154	S+F	OP. BAL.	89,000.00	51,513.73	15,814.60	67,328.23	21,671.67
		CL. BAL.	89,000.00	51,513.73	15,888.01	67,401.74	21,598.26
05723	S+E	OP. BAL.	128,000.00	62,055.00	59,788.08	121,843.08	6,156.92
		CL. BAL.	128,000.00	62,055.00	60,452.95	122,507.95	5,452.05
20042	S+F	OP. BAL.	98,000.00	32,038.44	39,488.44	71,526.88	26,473.12
		CL. BAL.	98,000.00	32,038.44	39,488.44	71,526.88	26,473.12
20144	S+F	OP. BAL.	140,000.00	74,339.49	28,143.44	102,482.93	37,517.07
		CL. BAL.	140,000.00	74,339.49	28,143.44	102,482.93	37,517.07
20203	S+F	OP. BAL.	55,000.00	26,150.52	43,622.30	69,772.82	15,227.18
		CL. BAL.	55,000.00	26,150.52	43,626.98	69,777.50	15,222.50
20742	S+E	OP. BAL.	80,000.00	78.00	6.33	84.33	79,515.67
		CL. BAL.	80,000.00	78.00	6.33	84.33	79,515.67
20784	S+E	OP. BAL.	110,000.00	20,439.22	65,080.84	85,520.06	24,475.94
		CL. BAL.	110,000.00	20,439.22	65,080.84	85,520.06	24,475.94
20785	S+E	OP. BAL.	80,000.00	57,571.12	474.47	58,045.59	21,954.41
		CL. BAL.	80,000.00	57,571.12	474.47	58,045.59	21,954.41
55730	S+F	OP. BAL.	90,000.00	63,122.18	2,751.12	65,883.30	24,116.70
		CL. BAL.	90,000.00	63,122.18	2,751.12	65,883.30	24,116.70

EXHIBIT 29
Supported Unit Budget Report 21

MSS 1 YEAR ASSG		V05051		TYPE OF IAR		SAC	
DIVISION BUDGET REPORT FOR PERIOD ENDING 30 APR 1981		04712		DIVISION NAME			
ALLOCATION		OBLIGATIONS		YEAR TO DATE EXP		GROSS ADJ OBL	
OP. BAL.		80,000.00		33,750.02		22,945.04	
CL. BAL.		80,000.00		33,744.39		56,695.06	
						56,769.52	
						23,304.94	
						23,236.47	
D/I DOCUMENT NO.		STOCK/PART NO.		DESCRIPTION		UI RI FC CG PRI	
X71 V0471203080297		5120002401412				EA C2 90	
X21 V0471203380630		8020008897917		BRUSH, VARNIS EA		2 8.45	
X21 V0471203450723		6515006600009		BLADE, SURGIC PG		12 1.45	
X21 V0471203450749		6505002998740		BACITRACIN A TU		10 1.30	
X78 V0471203510850						20 .39	
X71 V0471203520852		MVD				52.00	
						31.25	
						25.00	
						5.82	

for utilization by operational managers in the field. The next chapter will review the utilization of the SUADPS system in its actual implementation in an operational fleet environment.

V. AN ASSESSMENT OF SUADPS FINANCIAL OPERATIONS

The emphasis of this chapter is directed toward a process evaluation of SUADPS to determine whether the objectives of its financial information and control theory and design were in keeping with actual implementation results.

The purpose of any information system is to provide data in a format for subsequent interpretation to reduce the uncertainty of a situation. A management information system (MIS) as defined by Kenneron is:

...an organized method of providing past, present, and projected information relating to internal operations and external intelligence. It supports the planning, control, and operational function of an organization by furnishing uniform information in the proper time-frame to assist the decision maker. [Ref. 10, p. 91]

In conjunction with this definition, a financial information system would be of a slightly narrower scope but with the same essential elements. In this case, the organized method of providing the information within the SUADPS system is through the SUADPS operational procedures and the structural aspects of the SUADPS financial information network. A financial information and control system in the organizational context contributes to management in the performance of their responsibilities. Mader proposes that "to aid decision making, an information system should provide the right information, to the right person, at the right time, in a cost-effective way" [Ref. 11, p. 6].

The right person requirement did not appear to be a problem in the SUADPS operational environment. Each person interviewed was fully aware of the existence of the financial system and the associated Budget Reports that pertain to their job assignments. The three-level hierarchy structure of the Budget Reports were found to follow the chain of authority and responsibilities. This combined with the effective distribution system of the Budget Reports, ensured that the right person obtained the financial information in the actual implementation. However, serious concerns were voiced concerning the information system requirements of the right information and at the right time. These reservations were judged to be major shortcomings and will be highlighted in detail. Accuracy and timeliness are recurring important concepts in the literature of financial information and control systems. Nichelson supports this idea by saying, "To the extent that MIS techniques can present timely and valid facts and also facilitate evaluation of pertinent information, the MIS...pays its way in contributing to the increased effectiveness of business decisions" [Ref. 12, p. 110]. Herein lies the other reason, that of Managerial Performance assistance, for the SUADPS Fund Status Reports.

A. ACCURACY AND TIMELINESS

The mechanics of the SUADPS financial function were found to be highly interdependent. Prior to the financial documents even becoming an input to an update process, the

data collection and preparation procedures are extensive. Herein, the manual interfacing required even a routine document to change hands in excess of twenty times and pass through four separate divisions. Improper coordination through these procedures of authorization, screening, key-punching and numerous validating and recording actions could easily negatively impact on the ultimate accuracy and timeliness of the Budget Report information. The significant processes affecting the timeliness were found to be those involved with keypunching and manual holding files awaiting an actual batch update. Interviewees assigned to jobs within this document flow process confirmed that coordination problems had at times resulted in significant delays and lost documents. However, they were quick to point out that reconciliation procedures ultimately resolved 99 percent of these inadequacies.

The validation phase of the SUADPS update process also contributes to timeliness delays and hence accuracy of financial information. All input data are subjected to in excess of three hundred separate software validation checks as discussed in Chapter IV, Section A. One interviewee estimated that an average of 15 percent of input documents failed to process in every update, thereby finding their way to either the suspended transaction or transaction error listings. Once this action occurs, extensive manual interfacing is required to research the source document,

analyze the error condition, make the corrections, and resubmit the document through the data preparation process. Several Stock Control Officers judged that the normal backlog of both suspended and error listings in various degrees of correction at any one point in time averaged between five and seven. The implications of these document errors would be that an additional one to two weeks beyond normal processing time frames would be required for the eventual reflection on the financial records. Additionally, errors once corrected and resubmitted are not precluded from erroring out again for yet different validation deficiencies.

In actual implementation, document errors that meet all the automated validation criteria, even though they are still in error (i.e., miskeypunched requisition number, quantity, price, etc.), are very rarely initially diagnosed. The volumes of input and the shortage of manpower were found to prevent comprehensive reviews of the processed documents listed in the transaction ledgers or information listings. Reconciliation procedures were relied upon to identify and correct these types of errors. A managerial option of specifying a certain high money value threshold for enumeration on the information list is available to the SUADPS system operator. By using this option, a more thorough review of probable errors from miskeypunched quantities and prices can be effected. Most tenders used this option with a threshold of \$1000 in an effort to identify and limit errors of the

larger magnitudes. In practice, however, the comprehensiveness and dedication to this review were highly dependent on the manpower and workload levels in existence. Reconciliation procedures could once again be relied upon to subsequently correct these errors at a later date.

The financial information and control system is dependent on computer hardware and as such is not immune to the numerous associated problems of any basic computer system. However, the SUADPS system is unique in its dependence on an AN/UYK-5(V) (UNIVAC 1500) system possessing obsolete 1950's technology. Automated Data Processing personnel related narratives of extensive maintenance and repair efforts to meet operational commitments. They also reported manufacturer maintenance and repair part support as very limited and in some cases non-existent. The computer hardware and hence the financial information and control system was often temporarily out of service. This problem was even more pronounced aboard the USS PROTEUS which was operating from a deployed overseas homeport.

The computer system time sharing operation aboard a Submarine Tender was also found to cause a significant problem in actual implementation. Although SUADPS is the major customer, this time sharing system can cause numerous coordination and priority conflicts on an already overloaded and aging computer system. The ever evolving increasing requirements currently necessitate the system to operate in

excess of design criteria for twenty-four hours per day and seven days a week. This strenuous operational schedule further aggravates hardware maintenance and repair problems which ultimately negatively affect the accuracy and timeliness of SUADPS financial information and control aspects.

Still another factor affecting the accuracy and timeliness of SUADPS financial information is the frequency of the update process. As explained in theory by Chapter II.C, SUADPS financial updates are not automatic but are scheduled on a demand basis. A daily update does not mean that a daily update occurs every day of the year. On the average, Submarine Tenders process three daily and one weekly update per week. Although this goal of three daily updates per week is minimum by COMSUBPAC, computer hardware problems and other administrative or operational commitments do adversely affect this schedule.

A random sample conducted on update records of two Submarine Tenders revealed processing time frames for external requisitions and internal issues of 14, 14, 20, 21, and 41 days. This measure was obtained by averaging Julian dates of all requisitions and issues within an update and subsequently subtracting this average from the actual date of the SUADPS daily update. Although the above represented a small sample, the average time period obtained of 22 days was judged reasonable by several SUADPS personnel interviewed.

Using this 22 day time period as a rough measure of the numerous deficiencies noted previously above, the design

in conjunction with the implementation aspects of SUADPS as a financial information and control system can be evaluated as poor for the purposes of internal management needs. In further confirmation, this same poor evaluation was also expressed in the interviews of Repair Part Petty Officers (RPPOs).

B. RECONCILIATION

Reconciliation within a SUADPS operation is defined as the matching of every individual divisional requisition at the user level to the official accounting activity. As previously discussed above, reconciliation processes are paramount to the accuracy of SUADPS financial information and control system. Many design and implementation deficiencies rely adamantly on reconciliation procedures for error identification and correction. NAVSUP-P522, the bible for SUADPS procedures, mentions this extremely consequential financial function in a very limited scope and with the emphasis on inventory control accuracy. This omission appears to be as a result of SUADPS objectives for minimum manual and maximum automated policies. The introduction to financial management and miscellaneous management reports in NAVSUP-P522 [Ref. 3, p. 7-3] specifically advocates that "SUADPS has eliminated the requirement for manual record keeping and has also eliminated most of the need for manually preparing financial reports. No financial logs, ledgers, or records must be maintained since all such records are

maintained by the computer." At SUADPS's inception in 1969, it seems likely that this view may have been applicable, but in today's environment of ever-increasing volume saturation and intricate financial management requirements, manual ledgers are a necessity. COMSUBPAC has realized this eventuality by requiring OPTAR Logs and monthly reconciliation processes. This resultant dual manual and automated financial information and control system serves as a check and balance relationship.

The manual system consists of nothing more than a manual Requisition/OPTAR Log at the divisional level for purposes of financial and requisition status recording. As requisitions are prepared and submitted, they are logged in the Requisition OPTAR log with the obligational amount being deducted from the previous remaining balance. The Requisition OPTAR Log is usually updated nightly and is the most current indication of actual financial standing of that Division or Supported Unit, provided that the Log is maintained properly and reconciled. Exhibit 30 is an example of a Requisition/OPTAR Log.

Key punching errors, double entries, false charges, price adjustments, and requisition cancellations are but a few of the numerous possible adjustments reflected on a Budget Report 21 which require corresponding adjustments to the Requisition OPTAR Log. Additionally, considering that a SUADPS organization is processing thousands of requisitions/receipt documents weekly, some are bound to be delayed or

disappear for one reason or another. As an important part of the reconciliation process, corrections must also be made for requisitions which are listed in the Requisition/OPTAR Log but have to date failed to appear on the Report 21, or vice versa, after a specified period of time. The essence of the reconciliation process is to update the Manual Requisition/OPTAR Log with modification information available from the SUADPS files and to advise the Stock Control Division Officer of obligational transactions which are contained in the Manual Requisition/OPTAR Log but not yet reflected in the SUADPS financial files.

Upon completion of the requisition by requisition reconciliation, all debt/credit adjustments are totaled and batch posted to the Requisition/OPTAR Log. Then a reconciliation balance sheet memorandum report containing the list of (missing) requisitions not listed on the Report 21 and a list of other errors noted is prepared by the Reconciliation Division RPPD and submitted to the Submarine Tender Stock Control Division. This division, in turn, is responsible for the thorough research and corrective action as appropriate.

From a broad perspective, the transmission of requisition advice from the user to the Stock Control Division on a Reconciliation Report represents a second chance to update the SUADPS files. However, in this situation the basic mode of operation is a manual system attempting to update a mechanized system. Considering the basic intent behind

EXHIBIT 30

JESS DIXON AS-37

REQUISITION/OPTAR LOG

UIC	WORK CEN	JSN	JULIAN DATE	SERIAL NO.	STOCK NO.	DESCRIPTION	PR	FC	U	QTY	UNIT PRICE	TOTAL PRICE	FROM REPORT 21 MONTH MONTH, AMT	ADJUSTMENT	AVAILABLE BALANCE	PAGE NO
20						BALANCE BROUGHT FORWARD FROM PREVIOUS PAGE										
			9274	6700	1ST QTR ALLOCATION	100179	13	MC	EA	9999	10.00	10.00	SEE 9297-6719		10.00	10
			9274	6701	OP - XEROX	RENTAL	13	MC	EA	9999	50.00	50.00			9.500	10
			9274	6702	8010-00-28-7744	PAINT	13	MC	GL	10	5.51	55.10			9.444	10
			9274	6703	8010-00-242-2089	THINNER	13	MC	EN	5	2.00	10.00			9.434	10
			9276	6704	2925-00-941-8048	BREAKERS	06	MC	EA	3	12.50	37.50	CANC/NOT SEE 9286-6714		9.397	10
			9277	6705	6145-00-110-2272	CABLE	06	MC	EA	150	50	75.00			9.322	10
			9278	6706	WFA-BELL & HOWELL	PAPER	06	MC	EA	1	344.00	344.00			8.978	10
			9278	6707	MVO-SUPERMARKT	VARIOUS	13	MC	EA	1	200.00	200.00			8.778	10
			9279	6708	0 P. GARYS ELEC	SWITCHES	06	MC	EA	1	250.00	250.00			8.528	10
			9281	6709	0102-1F-03-4240	1348M CARDS	13	MC	EX	8	4.40	35.20			8.493	10
			9283	6710	1355-01-031-7628	VALVE	06	Y6	EA	2	448.00	N/C			8.443	10
			9284	6711	0530-1P-485-0074	P-485	13	A	EA	4	N/C	N/C			8.443	10
			9284	6712	5835-00-124-8607	TAPE SOUND	06	ME	EA	1	300.00	300.00			8.193	10
			9286	6713	5845-00-893-1053	HYDROURINE	06	Y6	EA	2	175.00	N/C			8.193	10
			9286	6714	1605-00-818-3897	CLINOMETERS	06	ME	EA	2	65.00	130.00			8.063	10
			9290		CANCELLATION A.D.J	8276-6704						(37.50)			8.100	10
			9293	6716	MVO-SUPERMARKT	VARIOUS	13	MC	EA	1	300.00	300.00			7.800	10
			9293	6717	4470-00-107-2215	DISC ASSY	06	MR	EA	2	88.00	176.00			7.624	10
			9294		ADDITIONAL 1ST QTR ALLOCATION						2.00				9.124	10
			9296	6718	WFA-6647EAR ELEC	200W GEN	13	MC	EA	1	425.40	425.40			9.199	10
			9297	6719	4470-00-247-9178	VALVE EXHAUSTING	06	MR	EA	3	22.50	67.50			9.131	10
			9298		ADDITIONAL 0611-9274-6701							500.00			8.631	10
			9299	6720	0108 1F-501-2508	1250-1	13	MC	EX	5	17.00	85.00			8.546	10
			9301	6721	7220-00-543-7157	TILE VINYL	13	M2	EX	3	12.16	36.48			8.510	10
			9301	6722	7540-00-266-6710	TAPE PRESS.	13	MC	RO	6	64	384			8.504	10
21						BALANCE CARRIED FORWARD TO NEXT PAGE						3.494			8.504	10

ALLOCATION: 12,000.00

QUARTER FY 82

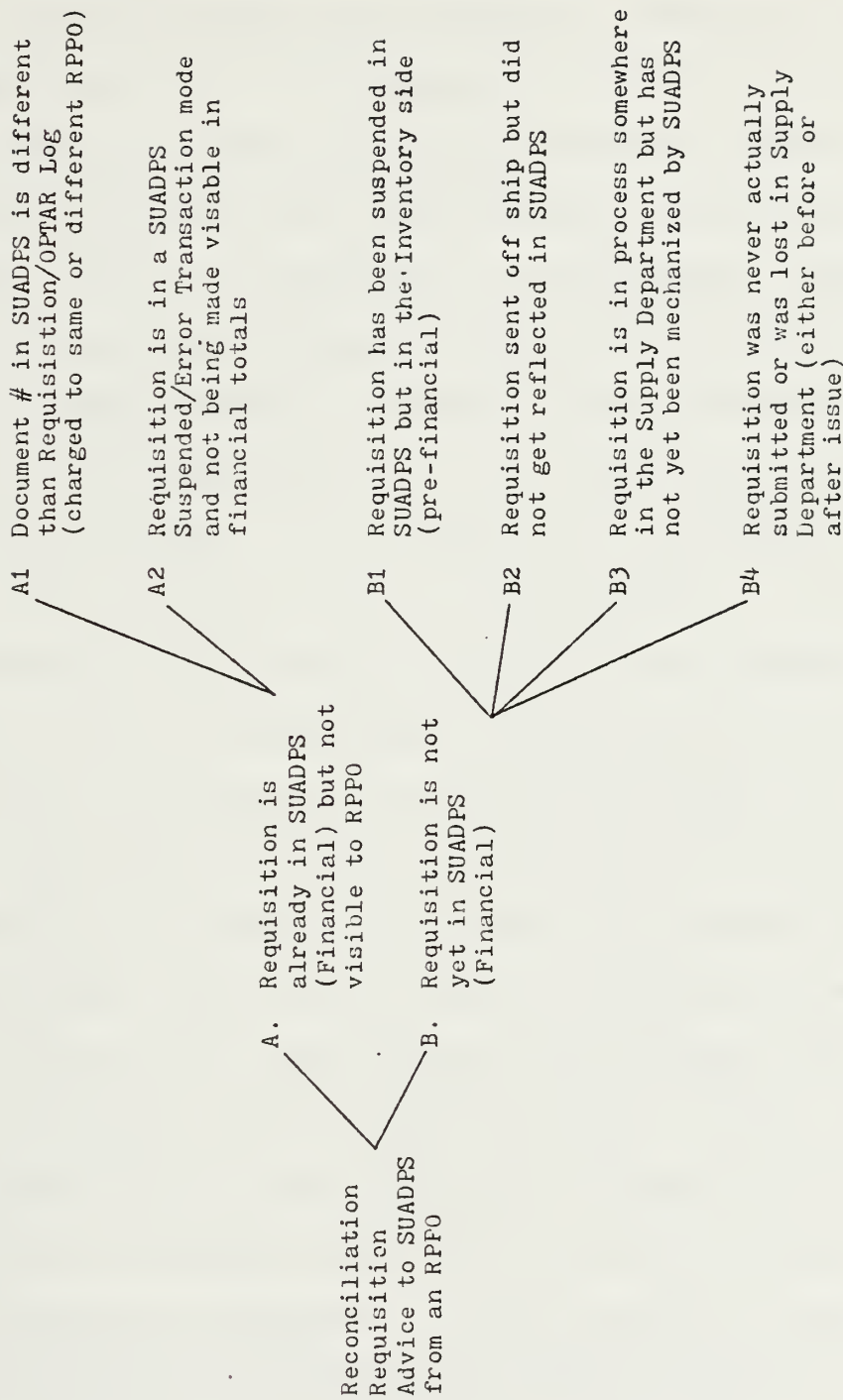
PAGE 1

SUADPS, this assistance would seem to be heading in the wrong direction. While the RPPO can advise about missing transactions from SUADPS, the RPPO cannot normally provide real advice as to why the transaction is not reflected in SUADPS. Exhibit 31 provides a graphical display of some of the reasons behind these missing transactions. Of the six major reasons associated with reconciliation mismatches, the first three (A1, A2, and B1) represent processing problems by the Stock Control Division, and the last three (B2, B3, and B4) represent potential major supply problems to the Supply Department. In essence, the SUADPS financial reports only carry transactions which have successfully completed processing and the reconciliation process requires RPPOs to advise (in some cases) time and time again of the Supply Department's failure to completely process a requisition. This advise is furnished without the aid of the computer and can be quite aggravating to the RPPOs.

One interviewee, in describing this reconciliation process, called it "a necessity but a nightmare." Still another interviewee interpreted the process as "running a ten million dollar business utilizing stone age checkbook accounting." Further review indicated that the nightmare connotation referred to the sheer magnitude and excessive manhours involved in the reconciliation processes. An average Submarine Tender has an accounting structure which breaks out costs into 100 to 140 separate accounts. It then follows that in

EXHIBIT 31

Unmatched Reconciliation Problems



excess of 100 Requisition/OPTAR Logs require individual matching of every requisition against the Divisional Budget Report 21. This in itself is a difficult problem but is further complicated by the existence of 40 to 50 different people of varied training and skills within the SUADPS system. These 40 to 50 personnel are called Repair Parts Petty Officers (RPPOs) and act as divisional or departmental representatives to the financial information and control system. Training and understanding of SUADPS system procedures for these RPPOs is a responsibility of the Supply Department's Stock Control Division. If the RPPOs fail to properly reconcile, the errors will never be identified or corrected, thereby affecting the accuracy of the financial records.

Since no official procedures or guidelines concerning reconciliation processes are promulgated by NAVSUP or NAVCOMPT, each Submarine Tender is responsible for developing its own specific procedures. A survey of all three Submarine Tenders disclosed that each had vastly differing processes. Even the reconciliation time frames varied dramatically. One tender attempted weekly reconciliations, another directed monthly reconciliations, and the third indicated that reconciliations were conducted only when it was felt a significant accuracy problem had occurred. In the opinion of the author, scheduled consistent reconciliation efforts are the key to accurate fiscal records. However, even this consistency is frequently interrupted in actual implementation to meet

temporary divisional operational commitments (particularly where priority repair of strategic deterrent submarines is involved). Additionally, supported unit reconciliations have to be tailored around deployment schedules.

C. FINANCIAL INFORMATION USEFULNESS

The distribution and usage of the Report 21s varied among the Submarine Tenders. One tender only distributed the cumulative monthly Report 21, explaining that the RPPOs became very confused when they received Reports 21s from every update. The other tenders distributed Report 21s from every update to the RPPOs, as per SUADPS design.

Interviews with Divisional RPPOs indicated that in general they perceived the SUADPS Budget Report 21 as useless, worthless, frustrating, and difficult to understand. The quality of SUADPS financial information, due to problems of accuracy and timeliness as previously discussed, left a significant attitude of skepticism by the operational managers. Divisional managers tended to rely on their personal Requisition OPTAR Logs for pertinent managerial financial data, often ignoring SUADPS Report 21s. Other research indicates that this problem is not unique to Submarine Tenders but exists Navy-wide.

Most existing official Navy Accounting systems report information about fund status. This fund status information often reaches management, particularly at the department levels, too late to be useful and is sometimes inaccurate. Consequently, reliance frequently is placed on unofficial systems and memorandum records for essential financial information

that cannot be obtained accurately or on a timely basis from official systems. This results in the duplication of accounting functions and reporting. It also results in the danger that key decisions may be made on information supplied by systems that have not been reviewed for adequacy of controls that insure reliable reporting. [Ref. 13, p. 2]

For managerial control purposes, SUADPS Report 21s are of little worth due to the absence of standards. The very essence of any control process involves variance analysis about a standard. However, the SUADPS financial information and control reports designed for just such management control assistance fail to possess any standards. Russel Ackoff defines control as

The process of control involves four steps: (1) Predicting the outcomes of decisions in the form of performance measures, (2) Collecting information on actual performance, (3) Comparing actual with predicted performance, and (4) When a decision is shown to have been deficient, correcting the procedure that produced it and correcting the consequences where possible. [Ref. 14, p. 112]

The mission of Submarine Tenders is both resupply and repair. However, these service-oriented outputs, although difficult to measure, do not have standards for effectiveness for control with the SUADPS Budget Report 21s. In implementation at the Divisional and Departmental management levels, little effort is made to match financial costs to services rendered.

At the Commanding Officer and Squadron Commander level, simple standards of performance were found to be used as management aids to compare with financial resource usage. The standards were expressed as a percentage of funds spent

over time. As an example, funds of \$100,000 were allocated at the beginning of the fiscal year for one quarter or ninety days of operations. If a management review is required on the 72nd day of the quarter, then the standard would be 72 divided by 90 or 80%. If funds of \$84,300 had been spent as of this management review, then the comparison of 84.3% of funds spent to the time-elapsed standard of 80% would indicate that funds were obligated above standard by 4.3%. Management actions would then be to control resource allocations by limiting obligation rates until spending was on target with time standards. In the opinion of the author, these are crude straightline input standards which make no allowance for output effectiveness but at the very least are something with which some control can be accomplished. Since the Budget Report 21s do not meet the managers' needs for these purposes of measurement and control, separate reports are used in actual operational implementation. Managerial financial control manual reports from two separate Submarine Tenders are provided in contrast to the Report 21 formats. Exhibit 32 is an example of an actual Commanding Officer Control Report while Exhibit 33 is an example of an actual Squadron Commander Control Report. It is interesting to note that financial information status from both the SUADPS automated reports and manual Requisition/OPTAR Logs are reflected on these control reports. On these local management reports, the financial information from SUADPS automated

Commanding Officer Financial Control Report

RPT. NO.: 06/3
TIME ELAPSED: 98.7

FROM: SUPPLY OFFICER,
TO: COMMANDING OFFICER,

SUBJ: SHIP'S DEPARTMENT BUDGETS; STATUS OF

1. FOR THE PERIOD 17 JUN 1981 THROUGH 22 JUN 1981 THE STATUS OF THE SHIP'S DEPARTMENT BUDGET OPTAR WAS AS FOLLOWS;

DEPARTMENT	AUTHORIZATION TO DATE	OUTSTANDING OBLIGATIONS	FYTD EXPENDITURES	ENDING REPORT 21 BALANCE	ENDING OPTAR BALANCE	PERCENT SPENT	LAST REPORT VERIFIED
ADMIN	58,400.00	31,307.94	25,243.63	1,848.43	1,293.63	96.8	18 JUN 1981
ADP							
MEDICAL	49,000.00	5,828.96	32,894.37	10,276.67	2,669.52	94.6	20 JUN 1981
DENTAL	16,400.00	2,957.53	9,107.52	4,334.95	273.92	97.4	20 JUN 1981
COMM.	43,200.00	7,485.32	25,123.64	10,591.04	1,983.27	94.5	16 JUN 1981 *
NAV.	8,700.00	1,807.68	5,294.25	1,598.07	703.03	91.0	20 JUN 1981
REPAIR	219,350.00	58,257.25	104,553.35	56,539.40	14,318.77	92.5	19 JUN 1981
ENGINEER	237,300.00	53,028.55	146,601.75	37,669.70	5,392.09	96.6	20 JUN 1981
WEAPONS	77,300.00	32,685.71	43,236.05	1,378.24	1,378.24	97.3	16 JUN 1981 *
DECK	63,750.00	12,642.61	30,341.27	20,766.12	10,876.36	82.0	16 JUN 1981 *
SUPPLY	232,610.00	115,593.62	108,395.71	8,620.67	983.44	98.6	20 JUN 1981
CO	18,990.00	,00	,00	18,990.00	18,990.00		
SUBTOTAL	1,025,000.00	321,595.17	531,236.79	172,168.04	58,862.22	93.3	
REP. (ROV)	3,406,000.00	1,668,103.33	862,417.76	875,478.91	488,969.30	84.7	19 JUN 1981
REP. (ROV-S)	449,000.00	208,093.74	190,043.37	50,862.89	4,909.00	98.0	19 JUN 1981
SUBTOTAL	3,855,000.00	1,876,197.07	1,052,461.13	926,341.80	493,878.30	86.2	
SHIP'S TOTAL	4,880,000.00	2,197,792.24	1,583,697.92	1,098,519.84	552,740.57	88.7	
C583	84,000.00	27,407.41	9,260.39	47,332.20	30,027.46	63.3	18 JUN 1981

* NO CURRENT REPORT 21 SUBMITTED FOR THE WEEK

COPY TO: DEPT. HEADS
12P

Squadron Commander Financial Report

Time Elapsed 66%.

99

reports is identified as Ending Report 21 Balance in Exhibit 32 and MECH 2157 in Exhibit 33. Alternately the financial information from manual Requisition/OPTAR Logs is identified as Ending OPTAR Balance in Exhibit 32 and as BOAT 2157 MSG in Exhibit 33. The wide variation between financial information accuracy and timeliness is readily apparent. The manual Requisition/OPTAR Log financial fund status can be seen to be significantly more current in nature. This significant difference from Exhibit 32 for ship's total amounts to \$585,809 or 11% of the total ship's allocation for this time frame. This 11% cannot be totally identifiable to timeliness since reconciliations prove that accuracy problems are always evident requiring both debit and credit adjustments to both the automated SUADPS system and the manual Requisition/OPTAR Logs. However, this 11 percent figure could be used as a very rough indication of timeliness and accuracy deficiencies. Note also that the percentage-spent shown in Exhibit 32 is computed from the manual Requisition/OPTAR Log status only, while the automated SUADPS official fund status is ignored for management control.

Financial control in supported units is even more complicated than aboard the Submarine Tender. Submarines tend to be deployed away from their parent tender much of the time, usually on special operations or strategic deterrent patrols. These deployments vary in duration from a few weeks to a few months, most of the time with the submarine submerged

and out of routine contact with its parent tender. When submarines are alongside for upkeeps or refits, they tend to stay from a few weeks to a few months, commonly less than one month. During this time they stock up on supplies and repair their equipment at a hectic pace. They normally obligate/ expend over 90 percent of their quarterly OPTAR allocation during this short time period. With the inherent delay of the SUADPS financial design, the Report 21 becomes of minimal value. For this reason the supported submarines tend to depend far more heavily on their Requisition/OPTAR Logs for both managerial financial information and control and fiscal compliance to prevent obligations in excess of authority.

D. MOTIVATION AND BEHAVIOR

Any control system in its implementation is designed to influence a process toward a direction perceived to be in the best interest for accomplishing organizational objectives. This influence process is characterized not by rational scientific principles but by little-understood human motivation and behavioral processes. The end result of a financial control system depends on how it influences behaviors and reciprocally is influenced by social and self controls of managers and subordinates. Robert Anthony emphasizes the point that

The central function of a management control system is motivation: the system should be designed in such a way that it assists and guides operating

managers to act in ways that are consistent with overall objectives of the organization.
[Ref. 15, p. 53]

Newman confirms this view strongly stating

Management Control is effective only when it guides someone's behavior. Behavior, not measurements and reports, is the essence of control. We often become so involved with the mechanics of control that we lose sight of its purpose. [Ref. 16, p. 4]

Interviews and observations for identifying and unraveling the conflicting influences of SUADPS-related motivational and behavioral effects were far too difficult to completely resolve and beyond the scope of this thesis. However, two unique but significant behavioral and motivational aspects were uncovered in sufficient detail to discuss. The first is the presence of conflicting priorities of the Supply Department Stock Control Division and the second is that of the professional attitude bias prevalent on a Submarine Tender.

The Supply Department's Stock Control Division is the primary division responsible for operating, managing, and controlling the SUADPS systems. The SUADPS system has a dual function of inventory control and financial management. Even the very name of the Division indicates that the emphasis of most Stock Control Divisions is in the area of Inventory Control. This conflict of priorities between inventory and financial management is seldom resolved. The limitations of highly skilled SUADPS personnel, and even manpower overall, can lead to the potential for personnel job assignments to overemphasize one of these highly important functional

responsibilities. The design of the SUADPS system even emphasizes the Inventory Control functions. Numerous management Utility Programs are available to an Inventory Manager to conduct extensive reviews and utilize as management aids in management of the onboard Stores Inventory. Significant job satisfaction positive reinforcements from high activity level inventory program actions occur frequently. However, also by design, to prevent fraud and abuse, few financially related programs are available for management actions. The end result inevitably tends to contribute to a Stock Control Division's emphasis on Inventory Control.

Budget Systems or Control Systems in general are most often perceived by line management as first order negative feedback. This negative attitude and feeling of constraints on available management actions tend to start an adversary relationship from the onset between line management and financial control procedures. Professional attitudes are also important factors influencing financial control systems. The Naval mission of a Submarine Tender is "Support of a Submarine Squadron." The personnel manning of a Submarine Tender is often a selection among professionals for high quality personnel for support of the nation's first line of defense, the Strategic Nuclear Ballistic Missile Submarines and for support of Hunter Killer Attack Submarines. A Submarine Tender is staffed with professionals (many even specifically designated Limited Duty Officer Professionals)

on many dimensions, such as Medical, Dental, Communications, Nuclear Weapons, Supply Corps, Chaplain Corps, Marine Corps, and even many specialized Repair personnel (i.e., nuclear reactor repair, submarine quality assurance repair, etc.). Anthony contends "In a non-profit, service organization, effectiveness cannot be measured by financial data by definition" [Ref. 15, p. 479]. Since a financial control system cannot numerically include information of effectiveness, many professionals tend to regard financial constraints as inappropriate restrictions to their work. Due to the preponderance of professionals on the Submarine Tender, financial implications of managerial decisions are often given low priority. Decision rationale are more often concerned with professional submarine support quality response. These actions on the part of Submarine Tender professionals at times can be likened to doctors calling for extensive and costly tests to save the lives of the patients, ignoring cost considerations because the price of life cannot be quantified. On the Submarine Tender a certain amount of this professional attitude is highly beneficial but to over-emphasize this behavior leads to the detriment of fiscal responsibility which cannot be ignored.

E. OTHER SIGNIFICANT SHORTCOMINGS

Support for the SUADPS financial information and control system itself is frequently limited. The sheer complexity of the Shipboard Uniform Automated Data Processing System

(SUADPS) processes require extensive training, specialization and experience to facilitate even the most routine operation. Personnel quality is an important characteristic of the overall system's function. Changes of the manning levels, training schedules, and administrative procedures for the financial information and control role throughout the Submarine Tender's organization can severely affect the validity and integrity of the integrated SUADPS system. In advocating training in accounting systems, Anthony Hopwood proposes:

Training within the enterprise and experience on the job are further means of control...it is also used to inculcate the social value and organizational life styles and ideologies which can shape the premises which managers and employees use in decision making. [Ref. 17, p. 2]

For requisitions not satisfied from the Submarine Tender's Inventory, the potential for OPTAR adjustments causes even more problems for the SUADPS financial information and control system. The Fleet Accounting and Disbursing Center (FAADC) periodically sends Unmatched Expenditure Listings, Unfilled Order Listings, and Filled Order/Expenditure/Difference Listings to the Submarine Tender on a periodic basis. The Submarine Tender, acting as the squadron accounting activity, is responsible for not only processing its own listings but also for all of its supported units. These listings must be researched for the determination of what adjustments and usually increased obligations are necessary to correct the SUADPS fund status reports. One problem with

this adjustment process is the excessive manual interfaces required to review applicable obligation and requisition status reports for analysis and corrective actions. Stock Control Division interviews indicated that this was a full time job for at the very least one individual but assistance often required even more manpower efforts. The magnitude of funds held in this transitional status can total in excess of several million dollars (this includes both the Navy Stock Fund Requisitions and End User Requisitions). Although the manual interfacing review efforts are a significant problem, an even greater problem existed in the financial processing delays associated with the FAADC actions. Financial storekeeper interviewees indicated that FAADC listings were generally received after a three-month delay which was evaluated as adequate. However, after extensively processing and reviewing the listings, FAADC took another three or four months time to resolve the mismatch and delete the documents from the Submarine Tender's Difference Listings. This second delay caused financial storekeepers to duplicate their prior month's actions, wasting valuable manpower assets. For the SUADPS information and control financial records, the FAADC difference list processing procedures caused adjustments to fund status reports the potential of 7 to 8 month delay, severely affecting the accuracy and management planning actions at the Submarine Tender operational level.

The resolution of the financial float between the SUADPS system and FAADC has many of the same problems that

exist in reconciling the inside financial float between the RPPO and the SUADPS system. However, there is one important difference between these inside and outside financial floats. The processing system for difference adjustments in the outside financial float will eventually balance. Even though this balance may be as much as eight months late, in general it still will occur for external requisitions submitted by the SUADPS system. However, the internal financial float differences may never balance. Since the Submarine Tender's Supply Department is not staffed to completely reconcile all the many separate fund breakouts for itself and its customers, the burden of reconciliation procedures generally falls on the divisional RPPOs and supported units. These personnel have little incentive to correctly reflect errors or adjustments which are not in their favor. To do so would be to reduce their operating funds and possibly adversely affect their divisional/unit performance or scope of operations. If these errors were from external requisitions, they will become part of the outside financial float and be resolved eventually, charging the correct customer. However, if these errors were from internal tender requisitions, the errors may only be caught when the resultant inventory discrepancy is discovered. Since it is generally impossible to discover the unique causes of all the inventory discrepancies, the losses generally are charged as inventory losses against the Navy Stock Fund. Thus, in some cases the actual customer never really gets

properly charged for the material consumed and additionally severely affects the inventory control aspects of Submarine Tender operations.

Still another problem uncovered in the SUADPS financial control system is the funding methods. Many critics of the government point out the funding system as the root of the control problems. It is a commonly heard complaint in governmental financial control systems, and SUADPS is not different in this aspect, that the manager who manages his fiscal resources well one year too often is rewarded by less resources the following year. Regina Herzlinger suggests:

A major cause of the problem is the method of financing such organizations. Funding in block grants, which vary with neither volume nor quality of service and which are made before the work is done, does not reward effective and efficient performance and gives managers little incentive to encumber themselves with tighter controls.
[Ref. 18, p. 84].

One Stock Control Officer, in relating the problems involved with reconciliation, spoke to this point and motivational behavior saying that the supported units had no incentive for accuracy in their financial records. This interviewee went so far as to say that the incentive for one particular supported unit to comprehensively review its Budget Report 21s for \$100 double entries and request corrections was close to zero. This particular supported unit simply asked for an increase in its annual allocation and was seldom, if ever, turned down by the parent squadron commander.

F. SUMMARY

This chapter reviews in depth the financial information and control aspects of the SUADPS system. Design deficiencies and implementation shortcomings uncovered are analyzed and discussed in detail. The next chapter will conclude the thesis with a summary of the significant findings with recommendations for improvements.

VIII. CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY OF FINDINGS

The purpose of this thesis was to review the Shipboard Uniform Automated Data Processing System (SUADPS) from the perspective of the user to determine if the financial system achieves the goals of an effective information and control system. Therefore, a summary of the thesis findings with recommendations for improvements are provided in this chapter.

The deficiencies uncovered in this thesis generally fell into the categories of accuracy and timeliness, reconciliation processes, managerial usage, motivation and behavior, and miscellaneous. The major problems of accuracy and timeliness were found to relate consistently to all the other problems uncovered.

The most dramatic finding was that the SUADPS financial information and control system was so severely effected by the combination of all the factors uncovered in this thesis to the extent that operational line managers and even Commanding Officers and Squadron Commanders tended to regard the SUADPS financial reports and information with a lot of skepticism. Reliance for management decisions was placed on unofficial Requisition OPTAR Logs. In a superficial review, these logs were found too often being haphazardly kept, complete with mathematical errors and kept by an RPPO

not trained specifically as a storekeeper but from a variety of professional ratings. Although the management control processes in implementation aboard the Submarine Tender appeared adequate and possibly justified in using this information, serious questions about the legitimacy and effectiveness of resource allocations from these methods still persist.

Due to a combination of accuracy and timeliness problems, the SUADPS financial information in actual implementation was mostly ignored for internal management use and relegated to the role of fulfilling external reporting requirements only. SUADPS financial information, although delayed from the actual Submarine Tender's fund status, served the purpose of external reporting adequately with the exception of the end of the fiscal year. Superhuman manual efforts and early cut-off dates were the generally used procedures for SUADPS end of fiscal year accounting closeout processes.

Still another important finding was the SUADPS objectives for minimal manual and maximum automated policies, including the objective of no requirement for financial logs, was far from accomplished in actual implementation. However, SUADPS-RT has reemphasized these objectives in its development plans, but the extent to which it will succeed in implementation is still questionable.

B. CONCLUSIONS

Since its inception thirteen years ago, SUADPS has evolved from a simplified data processing system for major

Naval support ships, used mainly for clerical support in processing volumes of data, to a system today designed through many modifications specifically as a Management Information System. In the not too distant future (still several years away however), SUADPS is projected to be the single, all-inclusive, integrated, real time software system with respect to supply and financial functions for the entire Navy's operational fleet units. A literature review on the subject of Shipboard Uniform Automated Data Processing System (SUADPS) disclosed that there was very little information written on this topic to date. This was a very surprising finding, considering the major system it has become today, in addition to the major future implications to the Naval fleet.

This review of SUADPS, with respect to a system of financial information and control as it exists in implementation today, revealed that it is beset with numerous problems severely constraining the effective resource allocations of operational afloat managers and their ships in total. The call for better resource management, improvements in financial procedures and practices, and the reduction of waste within the Defense Department has been voiced strongly by our current Commander in Chief. Now is the time to actively continue pursuing corrective actions to the SUADPS financial system. Although SUADPS financial improvements have been enacted periodically since SUADPS' inception, increasing volumes of input, increasing manual interfaces,

increasing hardware problems, and increasing specific accounting requirements have caused the current financial system to be in serious trouble.

The result of interviews revealed that there was an underlying attitude among the key SUADPS personnel reflecting the acceptance of the current SUADPS shortcomings as beyond their control. It was also felt that these short term problems were expected to continue until the longer term SNAP I Phase 2 and SUADPS-RT programs were operationally available for the Submarine Tenders. As an example, by distribution of Budget Report 21s to Divisional RPPOs on a monthly basis only vice daily as designed for management purposes, a signal of submission to SUADPS problems can be interpreted. This signal is not only given at the lower operational levels but also at SUADPS User Conferences where user problems have been and still are often referred to the SUADPS-RT program for resolution. If indeed SUADPS-RT, as is presently scheduled, is to be the one and only financial information and control system for the entire Naval fleet, SUADPS must start improving its reputation. Also by correcting SUADPS problems now, the implementation of SUADPS-RT throughout the fleet may be somewhat simplified.

In Chapter V the subject of reconciliation and the negative attitudes derived from this process were discussed. In this day and age of computer assistance to management, it seems intolerable to conduct such a process without the

aid of a computer. The essence of the problem of reconciliation is that many financial transactions are in a state of float between the Requisition/OPTAR Logs and the SUADPS financial files. Based on the 22 day delay average processing time, it would seem that the float between the RPPO's Requisition/OPTAR Logs and the SUADPS files must be three weeks worth of normal transactions plus all the lingering problems which exist between the two parties. The transmission of three weeks worth of data every time a reconciliation is conducted runs far beyond the normal expectations of management by exception which must have been envisioned when this system was developed. Accordingly, it seems appropriate that new action must be taken in SUADPS to fill this information void until such time as real time processing is available to SUADPS customers.

The SUADPS financial information and control system, as reviewed by this thesis, was ascertained to serve three distinct purposes of: costing, control of resources and costs, and as a vehicle for budget justifications or planning estimates. In the author's opinion, in SUADPS's current state the costing appeared to be far too detailed, causing far too much needless complexity. Although the numerous ROV cost codes are specifically required by NAVSUP P-522, a management review of S&E cost breakdowns for possible summarization and condensing efforts is suggested for the interim until SUADPS-RT implementation. Control of resources and costs in general require an immediate emphasis for

management attention and corrective actions. Planning estimates and OPTAR justifications from a SUADPS basis should be used in an initial rough capacity only until significant reconciliation procedures have been implemented effectively.

Additionally, prior to the implementation of SUADPS-RT, managers and users of the current SUADPS system need to thoughtfully review their attitudes and value judgments of the SUADPS system in total. Questions on the worth of effort and value of such a complex SUADPS system need to be voiced, discussed, analyzed, and recited to all personnel associated with SUADPS.

As a final note, given the magnitude of the resources involved, the intricacies of the system, and the numerous shortcomings uncovered, it was amazing that the resource allocation process operated as successfully as it did. However, the potential for disastrous results was judged to be extremely high. Therefore, improvement recommendations are provided for immediate management attention.

C. RECOMMENDATIONS

Any review or evaluation will never provide all the answers. However, it can expose deficiencies in existing programs and show the direction toward required corrective actions. With this concept in mind, this thesis review was conducted on an increasingly important SUADPS financial information and control system for the purpose of providing management enlightenment on deficiencies from the user

standpoint and recommendations for their improvement. The findings in Chapter V present a clear and urgent message that immediate improvement actions are needed. The recommendations provided below can only assist in reviving a decaying system.

1. Reconciliation guidelines, procedures, and instructions should be formalized, standardized and promulgated to all SUADPS users.

In a Naval Audit Service audit of COMSUBPAC in 1977 [Ref. 19, p. 2], the requirement to improve financial reconciliation procedures was a major discrepancy. This same deficiency as identified in this thesis is still an ongoing unresolved problem. This thesis points out that accurate and consistent reconciliations are a key to financial information accuracy and timeliness. Submarine Tender personnel are too engrossed in keeping the SUADPS system operational and dealing with the extensive manual interfaces to develop individual reconciliation instructions. In the interest of preventing the reinvention of the wheel, the USS DIXON's Reconciliation Instruction is provided in Appendix F. These guidelines were judged to be an excellent and easily understandable manual that is recommended for extensive promulgation.

2. The Stock Control Officer should be given the authority to oversee and manage the entire data input processes.

Currently the data input procedures are far too complicated and lengthy. A survey performed in conjunction with

this thesis indicated an average processing time frame of 22 days. The Stock Control Officer, given authority to expedite this process through the other three divisions, could trim this time frame greatly in order to allow the SUADPS financial system the opportunity for significantly increased accuracy and timeliness. Periodic audits of this processing time frame should also be initiated and monitored for immediate corrections when inordinate time frames appear.

3. More frequent SUADPS update processing is required.

Currently only 2 to 3 updates are processed per week. This schedule is not adequate enough to provide the required timeliness of SUADPS financial information that is needed by operational line managers in support of their responsibilities. Due to the completion of SNAP I Phase 1 hardware constraints, associated downtime and processing time have been greatly decreased. With only the slight reduction of often redundant inventory control processing, several more updates per week could be effected to significantly improve the SUADPS financial information timeliness.

4. SUADPS should be modified to include an automated visibility of the float between the RPP0's Requisition/OPTAR Log and completed SUADPS financial transactions. Additionally, SUADPS should then utilize this new float visibility as an addition to the Report 21 to produce more meaningful financial reports from SUADPS for internal management of funds,

inprocess supply and financial transactions and as a basis for ongoing performance evaluation of the SUADPS system.

It's recommended that this visibility be achieved by obtaining listings of all requisitions (Requisition #) and dollar value of each requisition from RPPOs each week for all submitted requests since the previous week. This minimum information should be input to SUADPS, matched against transactions as they process to a conclusion in SUADPS and thus maintained as a permanent float until deleted by the RPPO. Further the float "lists" should be employed by SUADPS to perform a mechanized reconciliation process which would then truly reduce the RPPO's reconciliation to a management by exception basis.

5. A program for the assignment, certification, and training of Divisional Repair Parts Petty Officers (RPPOs) should be formalized.

The RPPO is an integral part of the SUADPS financial information and control system. Excessive turnover and vastly varying skill levels were evidenced by this thesis review. Error rates are often a function of the RPPO training and experience. In the opinion of the author, the understanding of the SUADPS general objectives, reports, and procedures combined with a teamwork motivational attitude among the RPPOs as divisional representatives to the SUADPS system could dramatically improve the SUADPS operation.

6. Top management support of the SUADPS financial information and control system is urgently needed from the Commanding Officers and Squadron Commanders.

From a review of top management's local management report formats, it was quite evident that SUADPS financial information was often ignored in favor of unofficial Requisition/OPTAR Logs. Anthony and Herzlinger [Ref. 20, p. 447] commented that "A management control system is likely to be ineffective unless members of the organization's units perceived that it is considered important by their superiors." Specifically, the SUADPS Budget Report 21, or even financial information in general, can show little improvement as a financial information and control system until top management involvement is prevalent. This involvement must communicate to the middle management and first-line supervisors the importance of the balance between mission professional quality and fiscal responsibilities as a renewed organizational policy. Their visible support of this momentum in education and training programs would benefit both short and long term progress.

7. Relevant standards for the Submarine Tenders service-oriented output need to be identified and linked to the SUADPS financial information and control system.

Currently the SUADPS financial control system is ineffective in its usage by controlling on an input standard or a measure of expenditure rates. For efficient and effective allocation of resources, the Submarine Tender financial costs

should be related to its output of resupply and repair services to submarines. A financial control system cannot operate independently but must be integrated into the entire Submarine Tender management control system.

D. FOLLOW-ON THESIS TOPICS

In the course of this thesis research, several SUADPS related areas for follow-on study were identified as possible thesis topics:

1. A review of FAADC financial processing operations.
2. Alternatives for Naval fleet-wide implementation of SUADPS-RT.
3. Examining the relationships between the Naval fleet's supply and maintenance systems (SUADPS vs IMMS/OMMS).
4. SUADPS-RT: does it meet its objectives as an on-line inventory and financial management system?

APPENDIX A

KEY SUADPS MISSION SUPPORT AND FUNCTIONAL CAPABILITIES

Key SUADPS mission support and functional capabilities are summarized below:

Procuring/requisitioning

- Requisition processing
- Requisition status monitoring
- Requisition history file
- Automatic reorder
- Automatic follow-up
- Overage requisition analysis
- Department advice/status on outstanding requisitions
- Excess requisition cancellation

Receiving

- Receipts
- Receipt in-process
- Receipt history file
- Requisition reconciliation

Storing

- Item location control
- Inventory of selected categories of items
- Location audit
- Storeroom action
- Location change history

Issuing

- Issue recording
- Issue restriction
- Suspended issue tracking
- Demand and frequency accumulation
- SEAMART

Shipping

- Shipping invoice preparation

Transferring

- Automated preparation of off-load documents

- Automated off-load

- Production of suspense cards for turn-ins

- Material transfer to other activities

Selling

- Automated cash sales

Accounting

- Posting financial transactions

- Automated TIRs for specific BUMED items

- Automated maintenance of financial records

- Automated inventory manager cyclic asset reports

- Preparation of accounting and supply reports

- Magnetic tape exchange with FAADCs

- OPTAR history file inquiry

- Summary management analysis reports

- Processing unfilled orders

Maintaining inventory management control of stores and equipment

- Automated adjustment of stocked levels based on a continuing review of usage trends

- Automated processing of change notice actions

- Repairable item management

- Monitoring of shelf-life items

- Local management control of selected items

- Transaction item reporting

- Maintenance of a cross reference file

- Maintenance of pool allowance

- Physical inventory aids

- Change notice processing, analysis and notification

COSAL, AVCAL, "Q" COSAL, Boat COSAL, Load List
processing/maintenance

General file analyzer and report generator -
capability

Automated excess computations

Posting all transactions to asset status
records

Determining inventory adjustment quantities

Validating MILSTRIP data

Identifying duplicate documents

Substitute and interchangeable data

Preparing access/asset reports

Validation of input to insure record and report
accuracy

Management analysis of system errors

Transaction Ledger accumulation

Printing off-line aids such as catalogues and
listings

Collection of 3-M logistics data for local and
upline reporting

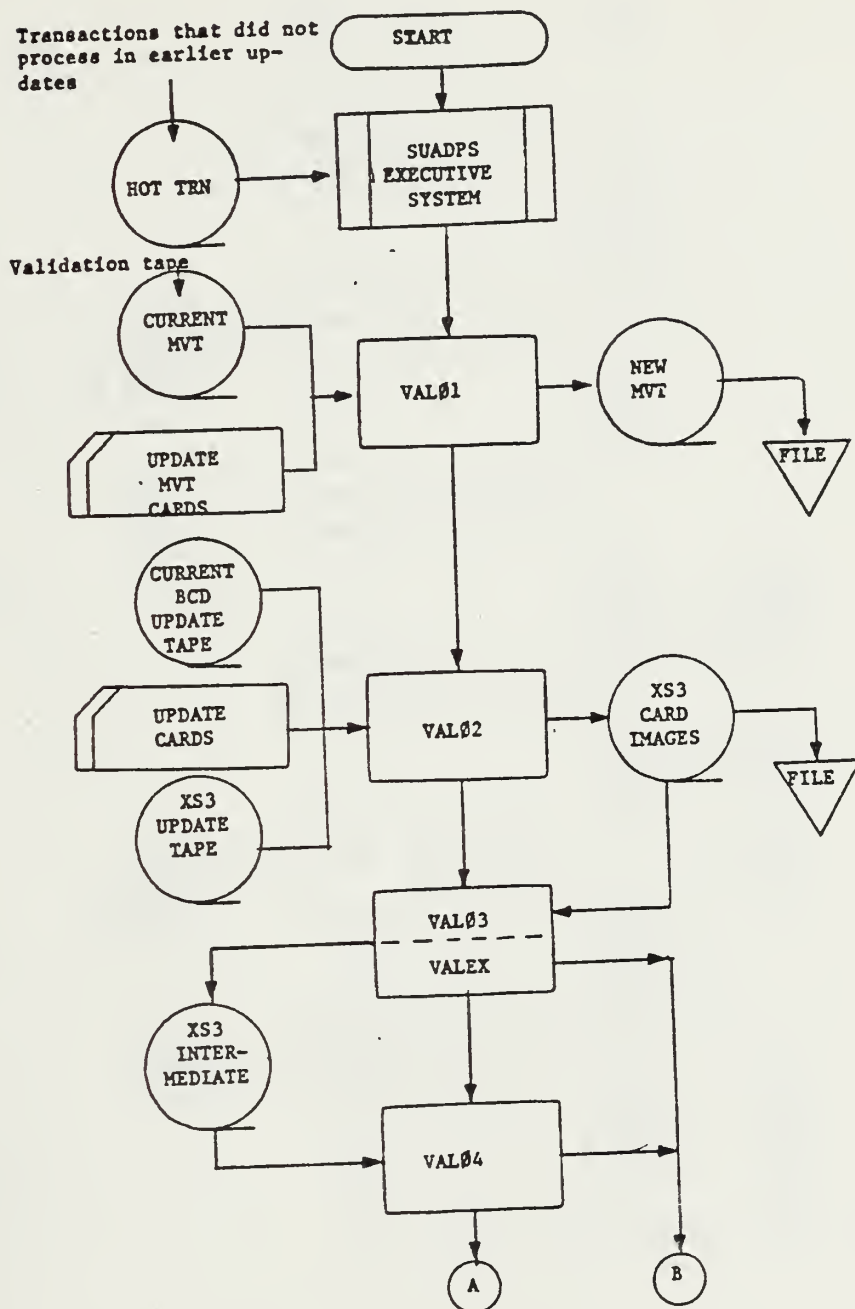
APPENDIX B

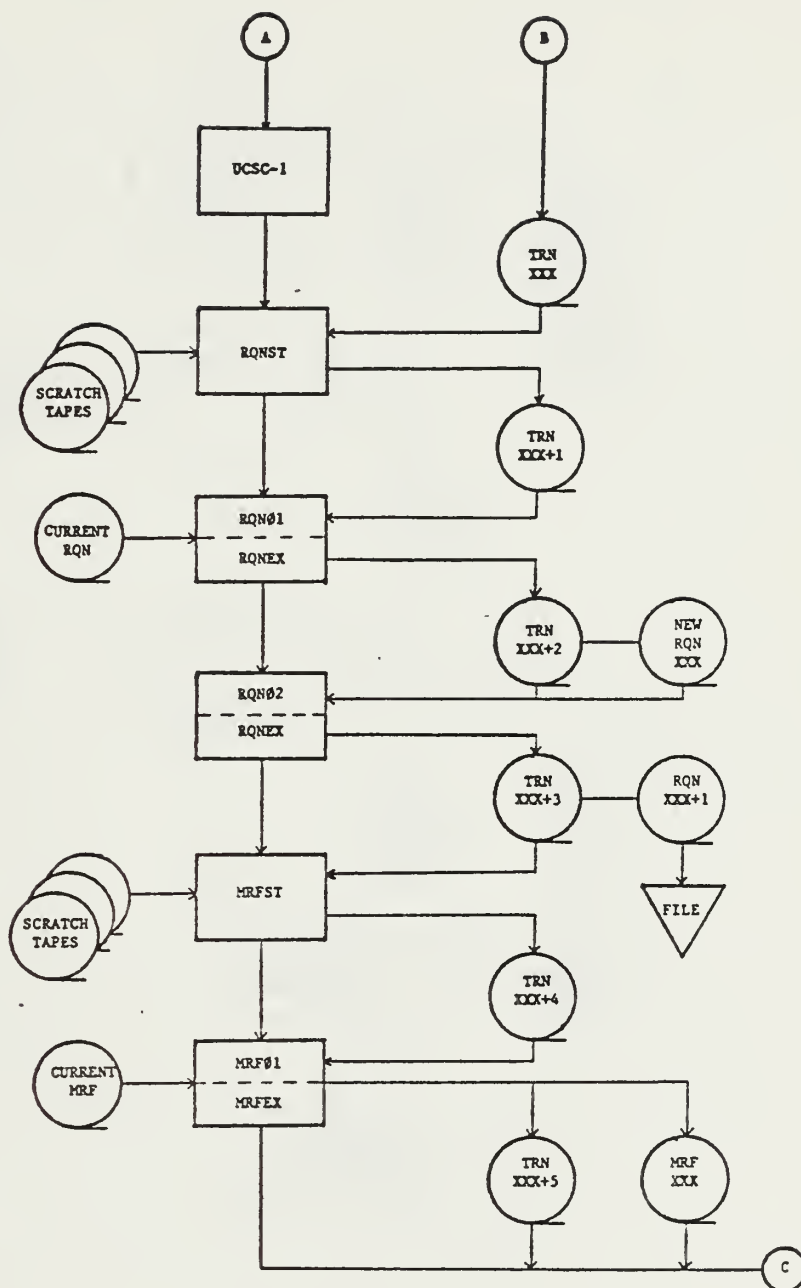
SUADPS TAPE FILES

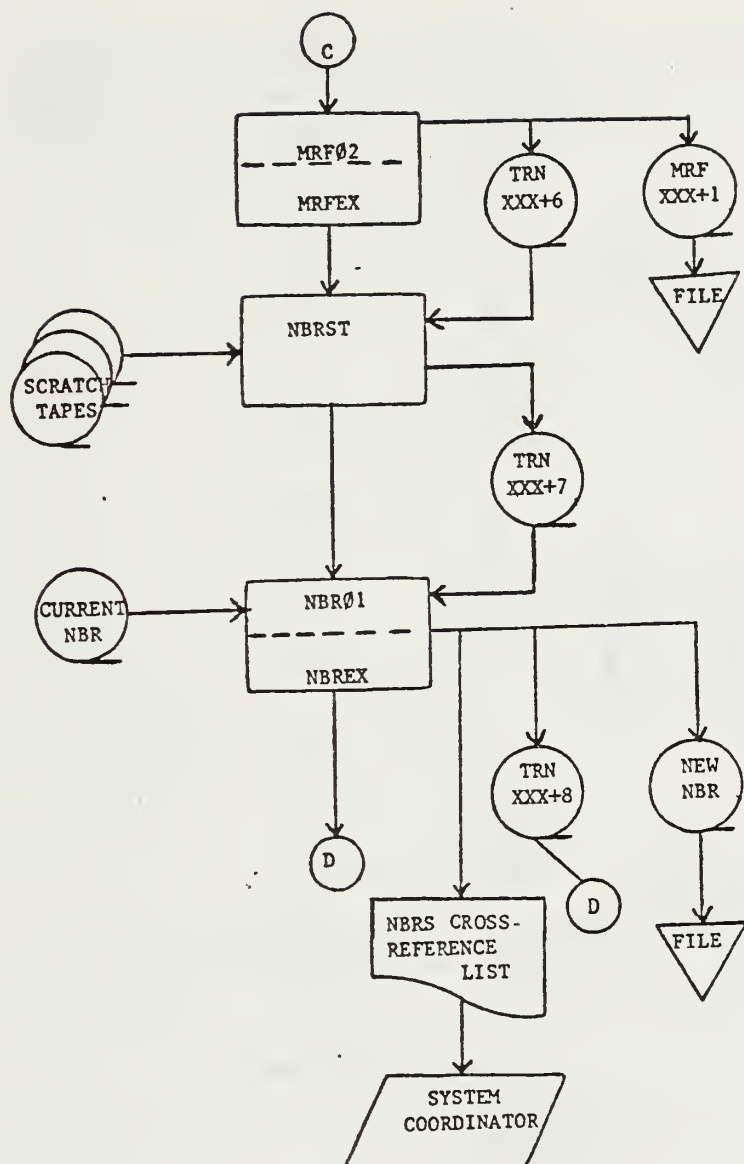
1. Master Instruction Tape (MIT)
2. Master Validation Tables (MVT)
3. XS3 Tape
4. BCD Tape
5. Transaction Tape (TRN)
6. Requisition File (RQN)
7. Master Record File (MRF)
8. Numbers File (NBRS)
9. Financial Work Tape (FWT)
10. Financial Master File (FMF)
11. Unsorted SOT
12. Sorted SOT
13. Hot TRN
14. Requisition History File (RHF)
15. Cumulative Transaction Ledger (CTL)
16. Cumulative Receipt History (CRH)
17. Cumulative OSO Transfer History
18. TDA91 Input to MOC
19. OPTAR History File (OHF)
20. RQW Requisition Work Tape

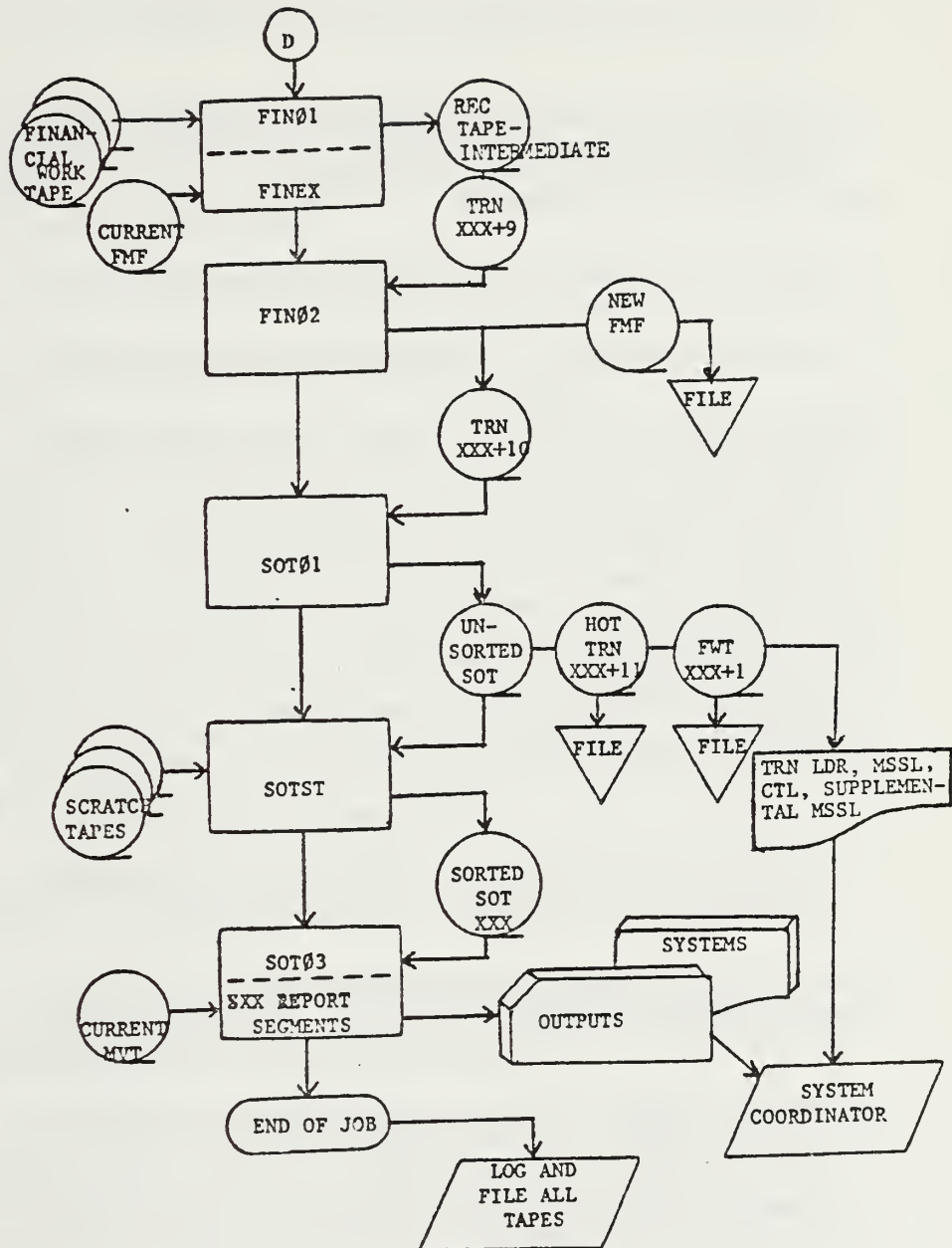
APPENDIX C

SUADPS DETAILS UPDATE FLOW CHART









(3) Flow Chart Narrative. SUADPS EXEC initiates the modular processing and portions of it remain core resident throughout the update processing.

Validation First Segment (VAL01) updates and copies the MVT, if change cards are present; otherwise, it only loads the VTC (tables used by computer to validate input) block of the MVT and turns over control to VAL02. MVT update cards must be the first input of the update or they will error out as erroneous DIs. MVT updating cannot be done during MDC, MRF03 or MAN01 updates.

Validation Second Segment (VAL02) reads the new input and creates the XS3 output tape, then turns over control to VALEX.

Validation Executive Segment (VALEX) is the executive control segment that guides processing during VAL03 and VAL04.

Validation Third Segment (VAL03) in conjunction with VALEX, validates if necessary and copies to the output TRN tape the TRN records wrapping around on the HOT TRN. VAL03 then reads the XS3 tape, setting the Posting Group Keys and writing the newly created TRN records on the output TRN tape. If a Type III (numeric) DI or a DI that begins with "N" is encountered on the new input XS3 tape, VAL03 will request a scratch tape and write those card images on an intermediate XS3 tape for validation during VAL04. Although it is possible to stop at any of the various legal recovery points and come back through the system to add additional new input, extreme caution should be used because if certain DIs that validate in VAL04 are on the HOT TRN, they will error out in VAL03 with MNKR 3, also, if the update had already been through RQN or MRF, the transaction ledgers and SSSL would be garbled or produced in two parts. If new input is encountered that requires validating in VAL04, the TRN is left open at the end of VAL03 and control is turned over to VAL04; otherwise, the TRN tape is closed and control passes to UCSC1.

Validation Fourth Segment (VAL04) in conjunction with VALEX, reads and validates Change Notice, DI IIIs (report types) and writes the TRN records onto the still open TRN tape. The TRN tape is then closed and control passes to UCSC1.

Uniform Carrier System Control One Segment (UCSC1) assigns the segments (based upon DI input), and then rewrites the TRN label block and rewinds the TRN, which is now a good restart tape. Control is turned over to SUADPS which loads the next segment to be run.

► Requisition Sort Segment (RONS) accomplishes sorting of the TRN tape for RQN processing by acting as a preprocessor for NARDAC's (FTSD) utility sort/merge program, SRTMRG. Parameters and tapes are set up and SRTMRG is then loaded as a segment. SRTMRG in turn loads the Requisition Own Code segment (RQNOC) which controls the first and last pass processing. During the first pass processing, the records read from the TRN tape are screened for applicability to the upcoming file update (RQN in this case).

If a given TRN record does not apply to the RQN File, another read occurs, thus overlaying that record in core. Those TRN records that are flagged to process in RQNØ1 will enter SRTMRG's normal sort routine. After the last merge pass is completed, the input TRN tape is remounted so that the TRN records ignored on the first pass can now be copied onto the open output TRN tape. Control is then passed to RQNØ1. At this point, the new TRN tape is a valid recovery (restart) TRN for RQNØ1. The 3B response to the "NUMBER OF SERVOS?" timeout causes a normal three tape drive sort except that the program will request that the MIT be dismounted and the scratch placed on T11 will receive the bypass records during the first pass processing. This scratch will eventually also receive the TRN records that are sorted and the tape will then become the completed output TRN. Using the 3B option requires exactly the same number of tape mounts and dismounts but saves the time required to do the second pass of the input TRN. The only drawback to the 3B option is that it will not work if only three tape drives are available. The TFT response to the "NUMBER OF SERVOS?" timeout can only be used while running on the Fastrand drum. A Tape Fastrand Tape sort utilizes the Fastrand drum as the external intermediate sort medium. During the first pass this option also writes the bypass transaction directly onto what will eventually be the output sorted TRN tape.

- ▶ Requisition First Segment (RQNØ1) contains modules for building and updating the file. The processing of MDS related transactions is accomplished in this segment. Note: DI ØØ1 is processed in RQNØ2.

Requisition Executive Segment (RQNE) does a matching and updating process between the sorted transactions that apply to the requisition file and the RQN File itself. Upon completion of RQN update, the TRN is closed and rewound and control is given to the next required segment. The TRN is now good for a restart.

- ▼ Requisition Second Segment (RQNØ2) contains only DI 3 modules for creating reports.

- ▲ Requisition Executive Segment (RQNE) does a matching and updating process between the sorted transactions that apply to the requisition file and the RQN File itself. Upon completion of RQN update, the TRN is closed and rewound and control is given to the next required segment. The TRN is now good for a restart.

Master Record File Sort Segment (MRFST) is the same as RQNST, with the sorted TRN tape out of MRFST being a good recovery tape.

Master Record File First Segment (MRFØ1) contains modules to build and/or update the current MRF, and also extracts onto the TRN required report records. Because of core limitations, it is not possible to process all possible types of transactions or report requests in one pass of the MRF. To keep from passing the MRF twice on every update,

the processing modules have been arranged so that those DIs which are most frequently requested are assembled in MRF01. MRF02 is automatically scheduled for processing if any of those DIs assembled in MRF02 are among the other new input. After the completion of the MRF update in MRF01, the output TRN is closed becoming a valid restart tape for the next processing segment (i.e., MRF02 or NBRST or FIN01 or SOT01).

Master Record File Executive Segment (MRFEX) performs the same basic function as RQNEX.

Master Record File Second Segment (MRF02) updates the MRF, prints the MSSLL (when requested) and extracts onto the TRN any required report records, closing the TRN before turning over control to the next segment. If Skip Key #2 is put to "ON" any time during printing of the MSSLL, the listing will be bypassed. By calling MRF03 off-line, the MSSLL may be continued from the point termination occurred.

MRFEX (see MRFEX above). Upon conclusion of the MRF02/MRFEX update the TRN label block is re-updated making it a valid recovery TRN.

Numbers Sort Segment (NBRST) is basically the same as RQNST and MRFST. The output TRN is a good restart tape for NBR01.

Numbers First Segment (NBR01) contains the modules for an update and information extracted from the Numbers File. The TRN tape out of NBR01/NBREX is a good recovery into either FIN01 or SOT01.

Numbers Executive Segment (NBREX) performs the same basic function as RQNEX and MRFEX.

Financial First Segment (FIN01) contains the modules to assign financial flags and update certain financial counters. The TRN tapes out of FIN01 and the REC tape together are good recovery tapes into FIN02.

Financial Executive (FINEX) controls the passing of pertinent records through core. Any FWTs created in previous runs will be called in inverted sequential order.

Financial Second Segment (FIN02) contains the modules to update the Financial Master File (FMF) tables with the financial information in the TRN record based on certain financial flags set in FIN01. A new FMF is created and a TRN tape good for restart in SOT01 is produced.

System Output Tape First Segment (SOT01) does a three-way split of the information on the input TRN. First the input TRN is copied to a TRN/SOT tape until a record that has completed all processing except for financial processing is encountered. If and when these type of records are encountered, they are copied onto a new FWT tape. The

TRN/SOT tape is then split, sending TRN records to the wrap around TRN and SOT records to the unsorted SOT tape. During the copy of the TRN tape to the TRN/SOT or FWT, the supplemental MSSL is printed. During the split of the TRN/SOT into a TRN and an unsorted SOT, the transaction ledger(s) is/are printed. The TRN/SOT is a valid recovery tape back into SOT01, but should be scratched once SOT03 is completed. The wrap around TRN produced here will be the HOT TRN for the next update. All TRNs into SOT01 should be saved until two successful financial runs have been made as they would be needed to recreate an FWT should one prove unreadable. FOR ATLANTIC FLEET AS (FBM) ONLY - PPMS strip produces punched cards from selected SOT records to be passed to PMO Charleston via autodin.

System Output Tape Sort Segment (SOTST) is similar to the other system sorts except that it sorts all of the records on the unsorted SOT tape.

System Output Tape Third Segment (SOT03) controls the scheduling and output of the reports. All requested and internally scheduled reports will come out in report number sequence, unless selected reporting is requested. Through selected reporting the order of reports and the appearance or non-appearance of reports can be controlled. If by-pass of punched card output is desired, put Skip Key #2 on.

- END OF JOB is the End of Job routine.

APPENDIX D

SUADPS-RT SPECIFIC OBJECTIVES

SECTION 4--OBJECTIVES

4.1 Introduction. Objectives included in this section are related to the functional work processes or operations outlined in the Environment Section. These objectives will provide a frame-of-reference from which solutions to stated problems and realization of opportunities identified can be gauged.

4.2 Overall Objective. The overall objective of the SUADPS-RT ADS is to provide a user oriented and enhanced supply/financial system that supports designated shipboard and MAG Supply Department supply support mission functions. An annual personnel cost avoidance for augmenting personnel of \$9,015,000 and a one time cost avoidance of \$698,000 to provide minimal Baseline system enhancements serve as offsets against the cost of the new ADS. The annual and one-time cost avoidances will be realized in the first year after the system implementation.

4.3 Specific Objectives. Specific objectives of the SUADPS-RT system are directed toward improved system responsiveness and satisfying user requirements. These objectives include:

- Reducing by at least 10%, the number of items reported as being in an "excess on-hand and on-order" position. This reduction should provide the funding to maintain minimal material in-store on-hand "range"¹ quantities. The reduction will be achieved within one year of the system becoming operational.
- Increasing supply "net effectiveness" within the SUADPS-RT user activities by 2 to 5%. This increase should be achievable within one year after SUADPS-RT is implemented.
- Providing a system that has pre-posting and concurrent processing of transaction capabilities. These processing modes should provide a 20% reduction in the number of "unmatched expenditure transactions" and promote improved financial management within the user and official

¹Minimal range of material in-store indicates at least one of each item allowed to be carried is on-hand or on-order.

accounting activities. The reduction will be achieved within one year after implementation of SUADPS-RT.

- Providing a system with a viable "in-process" receipt module that is capable of tracking during the process. This processing module should provide a 20% reduction in the number of "unmatched receipts (NSF-207) reported by the FAADC to cognizant user activities. The reduction will be achieved within one year after implementation of SUADPS-RT.
- Providing a system that expedites and enhances the recording and reporting of supply related maintenance data to NAMSO. The system should reduce the average reporting time by 20% and reduce the "in-process suspension" or retaining of transactions for matching by 50%. These reductions will commence when SUADPS-RT is operational.
- Providing a system that expedites and enhances the recording and reporting of supply demand data. A 10% improvement in the reporting of maintenance related issues to NAMSO should be attained. This increase will be achieved within six months after SUADPS-RT is implemented at each site.
- Providing a system containing real-time processing of location data ancillary to receipt processing, location audits and periodic physical inventories. A 50% reduction in the time to process a location change and a 10% increase in the filling of NMCS/CASREPT issues from "receipts in-process" should be attained. These system operating enhancements should be realized within six months after implementation of SUADPS-RT.
- Providing a modern ADP system that concurrently processes and/or generates related transactions (e.g., receipt transaction and quantity adjustment, or receipt transaction and location change data). Inventory adjustment transactions should be reduced by 10%. This reduction will be attained within six months after SUADPS-RT is implemented.

- Providing a system that automates some manual functions required to operate the Baseline system. A 15% reduction in the manual functions will provide man-power to enhance those supply support mission functions now deferred. This reduction will be attained within six months after SUADPS-RT becomes operational in the user activity.
- Providing a system that interfaces directly with the maintenance systems and can process inquiries and responses on-line. The average inter-system inquiry/response time should be reduced by 50% and enhance the maintenance productive functions. This reduction should be attained upon supply/maintenance systems integration and operational certification.
- Providing a system that is an on-line real-time system that will reduce "off-line" manual inventory and financial management records. A 50% reduction in manhours, transferable to other related functions being performed at unacceptable levels, should be attained. This reduction should be attained upon implementation of the system.
- Providing a system that will improve the timeliness and accuracy of "up-line" reports and return data. The ratio of current transactions (1 to 2 days old) should be increased by 10% and will enhance all data bases affected by the reports/returns. The increase should be attained within six months after the system is implemented.
- Providing a system with "fail-soft" capabilities and that will utilize all of the SNAP I ADPE's environmental capabilities. Utilization of the SNAP I environment capabilities should provide a minimum 10% increase in ADPE productive utilization. This increase will be attained within six months after the system is implemented.

Other specific objectives related to those cited above are:

- Improving mean supply response time for organizational and intermediate level material requirements at the activity level.

- Redirecting to remote source data entry techniques and supply support functions currently performed at unacceptable levels, manhours spent doing the following functions:
 - Manual preparation of supply/financial documentation.
 - Manual research of technical identification data for material.
 - Maintenance of "Local" departmental/divisional budget record.
 - Manual material location research.
 - Processing of error and/or adjustment transaction.
 - Processing of receipt take-up card or receipt-in-process transactions.
- Automatically determining reorder requirements.
- Processing of reorders on-line to enter various parameters so as to adjust the reorder to the "best reorder determination" within monetary constraints and other factors.
- Determining material availability and preparing "direct-turnover" requisitions for Not-in-Stock (NIS) requirements on-line.
- Concurrent processing of material issue and direct turnover requisition obligation/expenditures and budgetary records.
- Providing automated notification of requisition data (e.g., over-age dues, records without status, etc).
- Providing outstanding requisition real-time query capability.
- On-line, real-time receipt transaction processing and related adjustment transaction generation and processing.

- Real-time processing of location audit/change data of material in-store.
- Providing special handling/storage data to intra-activity users in a real-time mode.
- Processing inventory data/adjustments in a real-time mode.
- Providing an automated means to prepare Transfer Invoices and related transportation documentation.
- Automated determination of designated overhaul points for retrograde repairables.
- Maintaining material-in-store stock records in a more timely and accurate manner.
- Processing AVCAL, COSAL, Load/List range and depth adjustments and generating more timely report transactions.
- Providing adequate material interchangeability/substitutability data and related asset availability.
- Providing current inventory management visibility of on-board material in-store assets and "in-process" repairable components.
- Providing the means to process requisition/receipt transactions more timely and to reflect actual request or receipt data for an accurate computation of order and shipping/receipt processing times.
- Eliminating the necessity for "off-line" manual processing of repairable/special material inventory management systems.
- Concurrent processing of Budget/OPTAR records and requisition and/or issue data records.

- Providing timely visibility of Budget/OPTAR balances and/or transactions.
- Providing automated cross-referencing and retrieval of supply/3M data as appropriate.

Additional functional areas that will be automated as resources allow, include:

- Supply/financial automated sub-systems for Disbursing, Food Service and Ship's Store/Retail Operations.
- CAIMS inventory management sub-system.

APPENDIX E

SUMMARY LISTING OF SUADPS ERRORS

GLOSSARY (SEE APPENDIX 19 OF THE SUPPORT PROCEDURES FOR FURTHER DETAILS ON EACH OF THESE MESSAGE KEY NUMBERS.)

KEYS:

- (I) INFORMATION LISTING (MKNR)
- (S) SUSPENDED TRANSACTION LISTING (MKNR)

NO INDICATOR - TRANSACTION ERROR LISTING (MKNR)

- 1 LOCAL MGT CODE NOT IN TABLE
- 2 COG MUST MATCH VALIDATION TABLE
- 3 DOC IDENT MUST MATCH TABLE
- 4 REINPT WITH CORRECT DOC NR/SV CDE
- 5 DOC NR NOT IN RQN FILE
- 6 F/C NOT IN APPLICABLE TABLE
- 7 INVALID/INAPPROPRIATE UIC
- 8 MONEY VALUE MUST BE NUMERIC
- 9 PRIORITY CODE MUST BE NUMERIC
- 10 QUANTITY FIELD MUST BE NUMERIC
- 11 REINPUT WITH CORRECT RCD TYPE CODE
- 12 SIGNAL CODE INVALID
- 13 STOCK NUMBER INCOMPATIBLE WTH RTC
- 14 STOCK NUMBER IS NOT IN MRF
- 15 TWO POS OF SER NO NOT IN DPT TABLE
- 16 SUFFIX CODE MUST BE ALPHA
- 17 TCOG DOES NOT MATCH MCOG
- 18 UNIT OF ISSUE MUST MATCH TABLE
- 19 TRANS UI MUST MATCH MRF UI
- 20 UNIT PRICE MUST BE NUMERIC
- 21(I)S/N NOT MTR IN MRF AND TRAN
- 22 ILLEGAL SUP ADDRESS
- 23(I)INVENTORY ADJUSTMENT EXCEEDS \$500
- 24(S)INSUFFICIENT QTY AVAIL IN MRF
- 25 CONVERT UI/QTY TO RQN UI/QTY
- 26 STK NR DOESNT MATCH RQN RCRD
- 27 NUMERIC FIELD MUST BE NUM OR /
- 28 FLAG MUST BE 1 OR /
- 29 U/I DOESNT MATCH RQN RECORD
- 30 LOCATION BLANK OR INVALID
- 31 BAS RQN ALT BY X77. X71/73 ILLEGAL
- 32 QTY/ALLOW OR LOC REOD IF CC54 BLK
- 33 NON-MAT'L RECEIPT INDIC. INVALID
- 34 RQN ALRDY EXIST UNDER SAME DOC NR
- 35 STATUS CODE INCOMPATIBLE WITH DI
- 36 PRP CODE TRF RON/MAY REQ INV ADJ
- 37 MATERIAL RECEIPT DATE INVALID
- 38(I)SUBMIT MTR ADVICE CODE TO SHORE
- 39 RTC, QTY, COG INCOMPATIBLE
- 40 EST SHIPPING DATE ILLEGAL

41 SMCC MUST MATCH TABLE
42 TYPE STORAGE CODE MUST MATCH TFL
43 INVALID REPAIR INDICATOR
44 SPEC HANDLING CODE MUST BE ALPHA
45 DATE FIELD INVALID
46 REVERSAL INVALID/RQN NOT ON FILE
47(I)OUTSTANDING DTO WITH STOCK ONHAND
48(I)THIS REVERSING TRN HAS PROCESSED
49 MAT CONTRL CODE MUST MATCH TABLE
50(I)TRN FOR BUMED CONTROLLED ITEM
51 A/T CODE MUST BE 1-9
52 ERC CODE INVALID
53 APL/IOL TO BE DLETD ISNT IN NBR
54 RO/RP FIELD MUST BE NUMERIC
55 MTR GAIN REQUIRES DOC NR
56 RECORD SHOWS RQN ALRDY CMPLETED
57 DUMMY YEARLY FINANCIAL NOT ALLOWED
58 RI TO OR RI FROM IS WRONG
59 ADVICE CDE MUST MATCH TABLE
60 HI/LO + A/T CODE INCOMPATIBLE
61 REINPUT WITH CORECT PROJECT CODE
62 PURPSE CDE MUST BE EITHER A OR W
63 INVALID AVCA/ALLOWANCE INDICATOR
64 DISTRIBUTION CODE MUST BE ALPHA
65(I)CONSOLIDATE S1 LOCATIONS
66 CANNOT PROCESS LOCATION
67 OVERRIDE CODE INVALID
68 REINPUT CORRECT MEDIA + STATUS
69 REINPUT WITH CORECT DEMAND CODE
70 RDD MUST BE ALPHA/NUMERIC
71 NO APPRN IN TEL FOR F/C + F/Y
72 MRF STK RECORD ALREADY EXISTS
73 REPLY DATE MUST BE NUMERIC
74 INVALID CODE FUND
75 TRAN DATE FLD MUST BE NUMERIC
76 INPT X43 MTR SURVEY ON LOST QTY
77(I)MTR INV GAIN HAS PROCESSED
78 MRF ESTABLISH INDICATOR INVALID
79(I)TRAN HAS EST'D A DUAL MRF RECORD
80(I)THIS OVRIDE CODE HAS PROCESSED
81 ADD/DELETE INDICATOR INVALID
82 MVO ISSUE NOTATION INVALID
83 PRICE CHANGE REQUIRES CHG NOTICE
84(I)DEAD RQN REORDER IF REQUIRED
85(I)BF STATUS REC-OTHER STATUS PRESENT
86(I)REPAIRABLE X31/AO- MODIFIED
87 REPAIRABLE X31 ILLEGAL
88 ALL ZERO TQTY ILLEGAL

89 INPUT TTDIV UNEQUAL DPT TTDIV
90(S)MRF/NBR SUB-RECDs ARE FULL
91 FC/OVRCD ILLEGAL FOR SYSCOM SOAP
92 COG MUST BE 99 F/SERVICE FC
93(I)COG OI MRF NOT REQUIRED
94 THIS REV. TRN HAS PROCESSED
95 RTC 4 REQUIRED WHEN TGTY C9999
96 DI INCOMPATIBLE WITH OTHER INPUT
97 POOL ITEM NEEDS REPAIRABLE MCC
98 DOC NR NOT IN SUB-RECORD
99 TYPE 3 DI ERROR-SYSTEM COORDINATOR
100 U/P CODE / EST PRICE INDIC INVALID
101(I)NEW A/T 6 STK RCRD EST AUTOMATICLY
102 RETAIN QTY MUST BE NUMERIC
103 X13 INDICATOR TO SET MIDAT INVALID
104 F C INCOMPATBL WTH MRF/TRN CCG
105 TRN OVRCD DOES NOT MATCH RQN CVRCD
106(I)SUBSTUT AVAIL ON THIS SLOW RQN
107 TC116 MUST EG S, B, OR BLANK
108 INSUFFICIENT QTY AVAILABLE IN MRF
109 PAL MUST BE NUMERIC
110 SUPPORTED UNIT CODE INVALID
111 ERRONEOUS OVERRIDE CODE M
112 TQTY MUST MATCH RQTY
113 OUTPUT INDICATOR INVALID
114 OUTPUT REQUEST ALREADY ON FILE
115 NO REORDER OUTPUT REQUEST
116 CREDIT CODE INVALID
117 NO MATCHING REQN
118 BEGINNING JDAT SERIAL INVALID
119 TCOG MUST MATCH RCOG
120 DUMMY/REPORT INDICATOR INVALID
121 SUM OF PACK-UP QTYS LESS ONHD
122 MO MUST BE MINIMUM OF 01 MAX OF 12
123(I)MATL RECD WITH AT/AT6=8
124 EFFECTIVENESS EXCLUDE CODE ILLEGAL
125 DI USED ERRONEOUSLY
126 INSUFFICIENT DATA TO ESTABLISH RCD
127 ENDING JDAT SERIAL INVALID
128 REORDER REVIEW CLR IND MUST BE C
129(I)MRF DUAL RECORD LCC DROPPED
130(I)LOCATION NCT PROCESSED
131 TFCI/TEC INVALID
132(I)FLEET CONTROLLED ITEM
133 TECI MANDATORY AFM/SQD DOCUMENT
134 OVERAGE SUSPENS
135 INVALID USE OF CASH SALES CODE
136(S)INVENTORY ACTION PENDING

137 REINPUT APPROP AFM FC AND OVRCD C
 138 MRF QTY>131071.USE CI X13 NOT X11
 139 PROCESS CODE INVALID
 140 HI/LO/COSAL EXCEEDS LMTS (131,071)
 141 DUP SUFFIX CD-CORRECT AND REINPUT
 142 INVALID IOL/APL
 143(I)C1C 68 CLEARED - IND/FC INCOMP
 144 SM+R CODE INVALID OR NOT SLASH
 145 APA FC/COG ILLEGAL
 146 UIC ILLEGAL F/SYSCOM SOAP CHG
 147 DEPT CODE ILLEGAL
 148 IDFLG NOT SET-NO INV-SEE DI 084
 149
 150 QUANTITY ERROR-CC 25-29/45-49
 151 FC AND BUIC INCOMPATIBLE
 152(I)X91/X92 REQUIRED
 153 DPC AND FC NOT COMPATIBLE
 154 MDC RCD TO BE DEL NOT IN FILE
 155 DUPLICATE X91 INPUT
 156 EQUIPMENT ID CODE INVALID
 157 JOB SEQUENCE NUMBER INVALID
 158 DI ILLEGAL FOR YOUR USID
 159 APL/CID INVALID
 160 REFERENCE SYMBOL NUMBER INVALID
 161 X91/X92 ERR. USE NEW FORMAT.
 162 NON-MDC RCD IN FILE-CORRECT DN
 163 ILLEGAL TRANSACTION DATE
 164 DATA ELEMENT/USID NOT COMPATIBLE
 165 DUPLICATE X71 REVERSAL INPUT
 166(I) ERRONEOUS SUBSTITUTE RECEIPT
 167 FILL ITEM NUMBER INVALID
 168 PCAT MUST BE C, D, F, S, OR/
 169 DTO RQN ON FILE W/SAME DOC NR
 170 OVRCD REQUIRED FOR PARTIAL ISSUE
 171 X31/2 ALREADY EXIST W/SAME DOC NR
 172(I)X91/X92 BAS RCD SCRATCH AS DUPE
 173(I)X31 DROPPED-REPT 3M OFFLINE
 174(I)COMP 3M RCD DROPPED ON SAME DN
 175 RI AND ISSUING UTC INCOMPATIBLE
 176 RECEIVING UIC INVALID
 177(I)NW COSAL ITEM REST FM AUTO ISSUE
 178 MDC RQN IN FILE-CORRECT DN
 179 SERIAL NUMBER MANDATORY
 180 APL DEL IND/APL DESC IND INVALID
 181 ERRONEOUS ACTION CDE-MPAL IS SET
 182 ERRONEOUS ACTION CODE-NO MPAL
 183(I)LOAD LIST PRODUCED TRANSACTION
 189 APL DESC IND/SUP RIC INCOMPAT

190 STOCK NUMBER NOT IN NBR FILE
 191 FREQUENCY FIELD IMPROPER
 192 INVALID USE OF 1 IN CC54 of X73
 193 DN IN RQN NOT OUTSTANDING AO
 194 REV TRN DID NOT MATCH DEMAND S/R
 195 DATE ITEM EST MUST BE NUMERIC
 196 NO MATCHING AO ON FILE
 197 AVCAL/LLQTY/FQTY/OSAEL NUM ONLY
 198(I) PARTIAL CANCEL PROCESSED THIS DN
 199 DEL/REV INDICATOR INVALID
 200 STOCK NUMBER SUPERSEDED
 201(I) NSN CHANGED
 202(I) COG CHANGED
 203(I) UNIT PRICE CHANGED
 204(I) ITEM CONDEMNED-USE PROHIBITED
 205 MATERIAL CONTROL CODE CHANGED
 206 SLC/SLAC CHANGED
 207 TUP MANDATORY FOR UI CHANGE
 208 SECURITY CODE CHANGED
 209 QUANTITY PER UNIT PACK CHANGED
 210 ITEM CENTRALIZED-OLD UI REQD
 211(I) DEMILITARIZATION CODE CHANGED
 212 TUP CANNOT EXCEED 99,999.99
 213(I) UNIT OF ISSUE CHANGED
 214(I) USE ALL OLD-THEN NEW. DONT MIX
 215(I) ICP HAS WITHDRAWN INTEREST IN FSN
 216(I) SN CHG/SHOULD INPT LOCAL CHG NOT
 217(I) REPAIRABLE MCC CHANGED
 218
 219 SHELF LIFE CODE MUST MATCH TABLE
 220 SECURITY CDE MUST MATCH TABLE
 221 DEC LOC U/I MUST BE 4 OR LESS
 222 CONV FACTR MUST BE NUMERIC
 223 CANNOT DEL-X31SUB RCD REQ X91/2
 224 DEMIL CODE MUST MATCH TABLE
 225 SHELF LIFE MUST MATCH TABLE
 226 ERROR IN INPUT DI X52
 227 CN OLD-NEW NSN MUST BE UNEQUAL
 228 DEC LOC U/P INVALID
 229 INVALID FOR MSP OFFLOAD
 230 THIS DI REQUIRES NSN/DN
 231 INDICATOR MUST BE BLANK, 1 OR 2
 232 CANNOT DELETE OUTSTANDING RQN
 233 TCI 25-29 IS NEGATIVE
 234 STK SER NR ILLEGAL FOR THIS DI
 235 RQN INCOMPLETE-AWAITING MRF UP
 236(I) X91/X92 DLTD FM RQN BY NON-MDC
 237 RCD UNDER INVENTORY TRN ILLEGAL

238 ACTION CD ILLEGAL-1,2,3, BLK ONLY
 239
 240 BAS RQN IS X31/X32/X91/X92
 241 INVALID CARD CODE
 242 CARD CODE/CARD DATA INCOMPATIBLE
 243 TDAT ILLEGAL-MUST BE CURRENT FY
 244(I)HIGH MONEY VALUE TRANSACTION
 245 EXPEND CODE MUST BE 1 THRU 6
 246 MCC MUST BE F OR P
 247(I)QTY ON HAND-NO MRE LOCATIONS.
 248 MDSN TO BE DELETED NOT IN MRF
 249 WORK CENTER INVALID
 250 PROCUREMENT ITEM ID NR INVALID
 251 EST DATE AVAILABLE INVALID
 252(I)CANC REQ-MAT HAS BEEN SHIPPED
 253 PDO INVALID
 254 INVALID CODE X39 CC57
 255 LISTING SELECTOR IND INVALID
 256 CASH SALE CODE INVALID
 257
 258 RECORD SELECTION IND INVALID
 259 DTO TAKEN UP AS STK-X31 REQUIRED
 260(I)FC CHGD TO MATCH FSC/GRP TBL
 261
 262
 263 AT/RTC/COSAL/AVCAL, INCOMPATIBLE
 264
 265 STK SERIAL NR WITH RTC 4 ILLEGAL
 266 INV ITEM OFFLINE-CH QTY TOO BIG
 267 BUIC NOT IN THE BUC TABLE
 268
 269 BUIC MUST BE UICOWN
 270 COG/SIGNAL CODE INCOMPATIBLE
 271 JCN INVALID
 272 TUIC NOT IN NIF TABLE
 273(I)REPAIRABLE MCC X - REFLG NOT SET
 274 WORK UNIT CODE INVALID
 275 FSCM INVALID
 276 ISSUE DIVISION CODE INVALID
 277 INVALID SMIC
 278
 279 MATL OFFLOAD IND MUST BE M OR A
 280 REPORT INDICATOR INVALID
 281 SERIAL NO. CTL IND MUST BE 0 OR /
 282 RQN ON FILE. DI X77 ILLEGAL
 283 NORS MUST HAVE TTDIV IN 67-68
 284
 285 CONDITION PREVENTS MRF DELETION
 286(S)TRN/MRF COG DIFF. LOCAL CN REQ'D

287(I)REC. QTY LESS THAN REQ QTY - NC SC
288(I)NEG SUB RCC QTY SET TO 131,071
289 SUB SYSTEM DI ONLY
290 DI NOT IN VAL JUMP TABLE
291 DI NOT IN TQN JUMP TABLE
292 DI NOT IN MRF JUMP TABLE
293 DI NOT IN NBR JUMP TABLE
294 DI NOT IN FIN JUMP TABLE
295 DLUI/CF/NEW UI INCOMPATIBLE
296
297
298 DI 073/076 EQUAL 0 MONTHS BASE
299 098/076 INCOMPAT. WITH PRIMARY DI
300 CANNOT PROC DUP/NON-EXISTANT DUE
301 9M COG WITH RTC 4 ILLEGAL
302 ERRONEOUS SPEC HANDLING CODE
303(I)NO MATCH IN RQN FOR MRF DUE
304 ADVICE CODE MUST BE NUM/ALPHA
305 EXACT DUPE ON RQN FILE - DESTROY
306(I)DUPE RQN ASHORE-VERIFY RQN FILE
307 FAILED PART INDICATOR INVALID
308 DUPLICATE RECORD INDICATOR INVALID
309 REVERSAL INDICATOR INVALID
310 SERVMART COG MUST BE 9G
311(I)RQN FOR REPAIRABLE PROCESSED
312
313
314
315
316
317
318

APPENDIX F

SUADPS DETAILED MONTHLY OUTPUT REPORTS

<u>Report Number</u>	<u>Report Title</u>
03	Financial Inventory Report (FIR)
21	Commanding Officer's Budget Report (Current FY)
21	Departmental Budget Report (Current FY)
21	Divisional Budget Report (Current FY)
22	Listing of End Use Difference Between Obligated and Expended Amount
23	Detail List of Prior Year's Transactions
24	Message Report of Credits (AS, AS (FBM) Tenders)
46	Availability Cost Report

Additional Reports Generated with a Monthly Run (also known as SUMMARIES)

<u>Report Number</u>	<u>Report Title</u>
07	ROV A Summary (NAVCOMPT Form 176 Simulated)
07	ROV A Summary (Detail Listing)
07	ROV A Summary (Credit) NAVCOMPT Form 176 Simulated
07	ROV A Summary (Credit) Detail Listing
07	ROV A Summary (End Use) NAVCOMPT Form 176 Simulated
07	ROV A Summary (End Use) Detail Listing
07	ROV A Summary (End Use Credit) NAVCOMPT Form 176 Simulated
07	ROV A Summary (End Use Credit) Detail Listing
08	ROV B Summary (NAVCOMPT Form 176 Simulated)
08	ROV B Summary (Detail Listing)
08	ROV B Summary (Credit) NAVCOMPT Form 176 Simulated
08	ROV B Summary (Credit) Detail Listing
08	ROV B Summary (End Use) NAVCOMPT Form 176 Simulated
08	ROV B Summary (End Use) Detail Listing

08	ROV B Summary (End Use Credit)
	NAVCOMPT Form 176 Simulated
08	ROV B Summary (End Use Credit)
	Detail Listing

Budget OPTAR Reports (NAVCOMPT 2157)

<u>Report Number</u>	<u>Report Title</u>
41	Supported Units
42	Reimbursable OPTARs
47	Own Ship's

Additional Reports Generated with a Monthly Run

SAC 207 Reports and APA for Report 03

<u>Report Number</u>	<u>Report Title</u>
03	NSA Financial Inventory Report
03	APA Financial Inventory Report
04	NSA Receipt Report
06	2074 Report for Charges
06	2074 Report for Credits
06	Listing of NSA Expenditures for Charges
06	Listing of NSA Expenditures for Credits
05	Transfer Report - OSO Under \$100.00
05	Transfer Report - OSO Over \$100.00
20	Unfilled Order Summary
34	Inventory Adjustments Listing
48	NSA Financial Summary

Miscellaneous Reports

<u>Report Number</u>	<u>Report Title</u>
10	Supply Effectiveness Report (4000) Weekly
36	Bureau of Medicine and Surgery Transaction Item Reports (Monthly)
57	FMSO Demand Reporting (Monthly)

APPENDIX G

USS DIXON'S FINANCIAL ACCOUNTING & RECONCILIATION GUIDE



COMMANDING OFFICER
USS DIXON (AS-37)
FPO SAN FRANCISCO, CALIFORNIA 96648

DIXONINST 7042.1D

AS37:07:pdf
17 NOV 1981

USS DIXON INSTRUCTION 7042.1D

Subj: Financial records; reconciliation of

Ref: (a) COMSUBPACINST 7330.2 (series)

Encl: (1) Financial Accounting and Reconciliation Guide

1. Purpose. To promulgate procedures for the maintenance and reconciliation of departmental/divisional financial records.

2. Cancellation. DIXONINST 7042.1C

3. Background. It is mandatory that financial records be properly maintained and reconciled with the official computerized accounting records maintained by the DIXON Stock Control Division End-Use Financial Section to ensure proper management of OPTAR Funds. Enclosure (1) provides information to aid in the understanding of the Shipboard Uniform Automatic Data Processing System (SUADPS) Report 21 and reconciliation process. Questions regarding this subject should be addressed to the DIXON Stock Control Division, End-Use Financial Section. (Phone 225-7185)

4. Action

a. Department Heads/Division Officers are responsible for the proper utilization of OPTAR Funds allocated to them and will ensure RPPOs conduct reconciliations in accordance with the provisions of this instruction.

b. RPPOs will utilize enclosure (1) to reconcile divisional records with each monthly SUADPS Report 21. Upon completion of the reconciliation, and within five working days after receipt of the Report 21, the Report 21 Balance Sheet will be returned to the End-Use Financial Section of Stock Control.

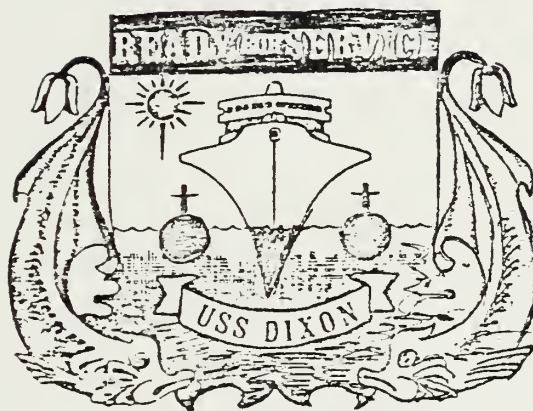

R. L. WOLFE

Distribution: (DIXONINST 5605.1D)
List I (Case A)
All RPPOs

Copy to:
COMSUBPAC (Code 41)

U.S.S. DIXON

AS-37



FINANCIAL ACCOUNTING

AND

RECONCILIATION GUIDE

THE NAVY'S FINEST SUBMARINE TENDER

Enclosure (1)

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PART V	SUBMARINE ACCOUNTING SUPPLEMENT	PAGE 26

PART I
REQUISITION/OPTAR LOG MAINTENANCE

APPLICABILITY: DIXON

REQUISITION/OPTAR LOG MAINTENANCE

1.) THE REQUISITION/OPTAR LOG WILL BE MAINTAINED LEGIBLY, IN INK, FOR EACH OPERATING TARGET (OPTAR) RECEIVED.

2.) THE LOG IS BROKEN DOWN INTO TWENTY THREE BLOCKS. A BRIEF EXPLANATION OF EACH BLOCK IS COVERED BELOW:

- BLOCK 1 - UIC - THE UNIT IDENTIFICATION CODE OF THE SHIP OR ACTIVITY. (R20132 FOR DIXON)
- 2 - WORK CENTER - A FOUR POSITION (2) ALPHA (2) EITHER ALPHA OR NUMERIC; OR THREE POSITION (2) NUMERIC (1) ALPHA CONFIGURATION ASSIGNED TO EACH DIVISION OR WORK CENTER. (I.E., SS07 IS ASSIGNED TO THE S-7 DIVISION)
- 3 - JSN - JOB SEQUENCE NUMBER - A FOUR POSITION (4) EITHER ALPHA OR NUMERIC CONFIGURATION ASSIGNED TO A WORK REQUEST OR REPAIR PART REQUEST. NOT APPLICABLE TO CONSUMABLE MATERIAL REQUEST EXCEPT ROV I CONSUMABLE WHICH IS ALWAYS 2000.
- 4 - JULIAN DATE - THE JULIAN DATE OF THE REQUISITION OR POSTING DATE FOR OTHER TRANSACTIONS WILL BE POSTED IN THIS COLUMN. THE FIRST DIGIT OF THE DATE SIGNIFIES THE CURRENT CALENDAR YEAR (I.E. 9142, "9" IS FOR 1979) NOT THE FISCAL YEAR, WHICH STARTS ON 1 OCTOBER OF EACH YEAR.
- 5 - SERIAL NO. - A FOUR POSITION ALL NUMERIC OR FIRST POSITION ALPHA OR NUMERIC OR VICE VERSA AND LAST TWO NUMERIC CONFIGURATION. THE FIRST TWO POSITIONS SIGNIFY THE DIVISION AND THE LAST TWO, THE NUMBER OF THE REQUEST. IF MORE THAN 99 REQUISITIONS ARE REQUIRED IN THE SAME DAY, USE THE NEXT DAY'S JULIAN DATE FOR THE REST OF THE REQUISITIONS TO MAINTAIN DOCUMENT SEQUENCE.
- 6 - COG - THE TWO CHARACTER NUMERIC & ALPHA CODE DESIGNATING A SEGMENT OF MATERIAL FOR MANAGEMENT BY A SPECIFIC INVENTORY MANAGER, AND THE FUNDING INVOLVED (I. E. ODD DIGIT FOR CHARGEABLE MATERIAL, EVEN DIGIT FOR NON-CHARGEABLE MATERIAL).
- 7 - STOCK NUMBER - SELF EXPLANATORY.
- 8 - DESCRIPTION - SELF EXPLANATORY.
- 9 - PRI - THE PRIORITY IS A TWO CHARACTER NUMERIC CODE ASSIGNED TO THE REQUISITION WHICH INDICATES THE MISSION OF THE REQUISITIONER AND THE URGENCY OF NEED FOR THE MATERIAL.
- 10 - FC - FUND CODE - A TWO CHARACTER NUMERIC/ALPHA CODE USED TO CITE THE APPROPRIATE ACCOUNTING DATA ON REQUISITIONS (I. E. MC FOR CONSUMABLE MATERIAL, MR FOR REPAIR PART).

BLOCK 11 - UI - UNIT OF ISSUE - SELF EXPLANATORY.

12 - QTY - QUANTITY.

13 - UNIT PRICE - CAN BE OBTAINED FROM CURRENT SUPPLEMENTAL STOCK STATUS AND LOCATOR LISTING (SSLL) OR MRF.

14 - TOTAL PRICE - THE SUM OF TOTAL QUANTITY REQUISITIONED TIMES THE UNIT PRICE.

15 & 16 - WILL BE COVERED IN RECONCILIATION PROCEDURES FOR OPTAR LOG.

17 - AVAILABLE BALANCE - THE AVAILABLE BALANCE OF THE TOTAL ALLOCATION.

18 - DATE RECD - THE JULIAN DATE WHEN THE MATERIAL IS RECEIVED.

19 - RECD FROM - ACTIVITY WHO ISSUED THE MATERIAL (I. E. DIXON, NSC).

20 & 21 - BALANCE BROUGHT FORWARD FROM PROVIOUS PAGE AND BALANCE CARRIED FORWARD.

22 - QUARTER OF FISCAL YEAR.

23 - PAGE NO. - WILL BE NUMBERED CONSECUTIVELY FROM NUMBER ONE ON.

0.00 *

10,000.00*1

500.00 -
55.10 -
10.00 -
37.50 -
75.00 -
344.00 -
200.00 -
250.00 -
35.20 -
300.00 -
130.00 -
37.50 -
300.00 -
176.00 -
2,000.00 +
425.40 -
67.50 -
500.00 -
85.00 -
36.48 -
3.84 -
8,506.48

0.00 *

500.00*+
55.10 +
10.00 +
37.50 +
75.00 +
344.00 +
200.00 +
250.00 +
35.20 +
300.00 +
130.00 +
37.50 -
300.00 +
176.00 +
425.40 +
67.50 +
500.00 +
85.00 +
36.40 +
3.84 +
3,493.52

0.00 *

Allocation to date
Total Obligations
Available Balance

12,000.00*+
3,493.52 -
8,506.48

8,506.48 *

OR

0.00 *

Total Obligations
Available Balance
Allocation to date

8,506.48*+
3,493.52 +
12,000.00

12,000.00 *

0.00 *

3,493.52 * Total Obligations
(Page 1 of OPTAR Log)

8,506.48 * Available Balance
(Page 1 of OPTAR Log)

0.00 *

0.00 *

ADDING MACHINE TAPES

TWO ADDING MACHINE TAPES WILL BE RUN FOR EACH PAGE IN THE OPTAR LOG AND ATTACHED TO THE BACKSIDE OF THE RESPECTIVE OPTAR LOG PAGE. THE FIRST TAPE, WILL CONTAIN A DECLINING BALANCE OF ALL TRANSACTIONS CONTAINED ON THE PAGE, STARTING WITH THE AVAILABLE BALANCE BROUGHT FORWARD FROM THE PREVIOUS PAGE. THE SECOND TAPE WILL TOTAL ALL OBLIGATIONS, CREDITS, AND ADJUSTMENTS MADE TO DATE. DO NOT INCLUDE ALLOCATION TRANSACTIONS IN THIS FIGURE. SUBTRACT THE TOTAL OF THE SECOND TAPE FROM THE PRESENT OPTAR GRANT; IF BOTH TAPES AGREE THEN THE PAGE HAS BEEN BALANCED CORRECTLY. NO MATTER HOW ACCURATELY THE LISTINGS ARE PROCESSED, IF THE OPTAR LOG PAGES ARE NOT BALANCED CORRECTLY, THE CORRECTED COMPUTER TOTAL OBLIGATIONS WILL NEVER AGREE WITH THE OPTAR LOG TOTAL OBLIGATIONS LINE ON THE REPORT 21 BALANCE SHEET.

DIXON AS-37

REQUISITION / OPTAR LOG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
JCN	CLN	SERIAL NO.	COG	STOCK NO.	DESCRIPTION	PRIC	FCU	QTY	UNIT PRICE	TOTAL PRICE	FROM REPORT MONTH, QTY, AMT	ADJUSTMENT	AVAILABLE BALANCE	DATE RECD			
BALANCE BROUGHT FORWARD FROM PREVIOUS PAGE																	
		9274	6700	1ST QTR ALLOCATION	ON 100179				10.0000				10.0000				
		9274	6701	OP - XEROX	RENTAL	13	MC	EA	50000	500.00	SEE 9297 - 6719		9,500.00				
		9274	6702	8010-00-284-7744	PAINT	13	MC	GL	551	55.10			9,444.90				
		9274	6703	8010-00-242-2089	THINNER	13	MC	GL	200	10.00			9,424.90				
		9276	6704	2925-00-441-8048	BREAKERS	06	MIS	EA	3	37.50	USED SEE 9286 - 6714		9,397.40				
		9277	6705	6145-00-110-2272	CABLE	06	MIS	EA	150	75.00			9,322.40				
		9278	6706	89A-FELL & HOWELL	PAPER	06	MC	EA	1	344.00			8,978.40				
		9278	6707	MNO - SUPMARKT	VARIOUS	13	MC	EA	1	200.00			8,778.40				
		9279	6708	0.P. GRAYPAC ELEC	SWITCHES	06	MC	EA	1	250.00			8,528.40				
		9281	6709	01012-15 013-4840	1348M CARS	13	MC	EX	8	35.20			8,493.20				
		9283	6710	411-1355-01-031-7628	VALVE	06	YU	EA	2	N/C			8,493.20				
		9284	6711	010530-1P-485-0074	P-485	13	Δ	EA	4	N/C			8,493.20				
		9284	6712	01N-5835-00-124-2807	SAFE XEROX	06	MIS	EA	1	300.00			8,193.20				
		9286	6713	5845-00-843-1053	HITSCUMANE	06	YU	EA	2	N/C			8,193.20				
		9286	6714	0605-00-818-2897	PISTONS METERS	06	MIS	EA	2	130.00			8,063.20				
		9290		CANCELLATION ADS 8276-6704					(37.50)				8,100.70				
		9293	6716	MNO - SUPMARKT	VARIOUS	13	MC	EA	1	300.00			7,800.70				
		9293	6717	4470-00-107-2205	DISC ASSY	06	MIS	EA	2	176.00			7,624.70				
		9294		ADDITIONAL 1ST QTR ALLOCATION					2.0000				9,624.70				
		9296	6718	89A - GRAYPAC ELEC	200W GEN	13	MC	EA	1	425.40			9,199.20				
		9297	6719	4470-00-267-4173	VALVE PUSHPAC	06	MIS	EA	3	67.50			9,131.80				
		9298		ADDITIONAL OPERATIONS 9274 6701						500.00			8,131.80				
		9299	6720	0108-1F-501-2308	1250-1	13	MC	EX	5	85.00			8,528.30				
		9301	6721	1220-00-543-1157	FILE VINYL	13	MIS	EX	2	26.48			9,510.52				
		9301	6722	010510-00-216-6710	TAPE PRESS	13	MC	RO	6	3.94			8,504.48	PAS			
BALANCE CARRIED FORWARD TO NEXT PAGE																	
ALLOCATION - 12,000.00																	
① 3 - QUARTER FY 50																	
② 48 PAS																	

ALLOCATION - 12,000.00

QUARTER FY 20

PAS

CON AS-37

REQUISITION/OPTAR LOG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
USN	JULIAN DATE	SERIAL NO	COG	STOCK NO.	DESCRIPTION	PR	FC	UI	QTY	UNIT PRICE	TOTAL PRICE	FROM REPORT 21 MONTH QTY,AMT	ADJUSTMENT LOP	AVAILABLE BALANCE	DATE RECD	RECD FROM			
BALANCE BROUGHT FORWARD FROM PREVIOUS PAGE																			
	9310	6723	9G	805-00-455-8285	BAG PLASTIC	13	MC	PK	1	8 32	8 32			8,506 48					
	9320	6724	9G	6210-00-315-6355	FIXTURE	06	MS	EA	4	30 65	122 60			8,498 16					
	9325	6725	9G	MVO-SUPERMART	VARIOUS	13	MC	EA	1	100 00	100 00			8,375 56					
	9326	6726	9G	BPA-MONOSCE	CALCULATOR	06	ME	EA	1	175 00	175 00			8,100 56					
BALANCE CARRIED FORWARD TO NEXT PAGE																			

PART II
BUDGET OPTAR REPORT 21

APPLICABILITY: DIXON
SUBGRU FIVE UNITS

BUDGET OPTAR REPORT 21

1. INTRODUCTION: REPORT 21 IS A DETAILED BREAK DOWN AND SUMMARY OF A SUPPORTED UNIT'S/DIVISION'S REQUISITIONS AND CURRENT FINANCIAL STATUS. THE REPORT IS PRINTED AND UPDATED WEEKLY. STOREKEEPERS/RPOS SHOULD USE REPORT 21 TO RECONCILE DIFFERENCES BETWEEN THEIR OPTAR LOG AND THE MASTER FINANCIAL RECORDS MAINTAINED BY THE DIXON STOCK CONTROL END-USE FINANCIAL SECTION. THE REPORT IS DIVIDED INTO TWO SECTIONS, NAMELY FINANCIAL AND DETAILED LISTING.

2. FINANCIAL. ACROSS THE TOP OF REPORT 21 IS A SUMMARY OF THE UNIT'S/DIVISION'S FINANCIAL STATUS. THE HEADINGS AND LABELS OF THIS SUMMARY ARE DEFINED AS FOLLOWS:

A. OP. BAL. (OPENING BALANCE) - THE FIGURES THAT WERE CURRENT AT THE BEGINNING OF THE REPORTED WEEK (CLOSING BALANCE OF LAST REPORT).

B. CL. BAL. (CLOSING BALANCE) - THE FIGURES THAT ARE CURRENT AT THE END OF THE REPORTED WEEK (WILL BE OPENING BALANCE OF NEXT REPORT).

C. ALLOCATION - THE UNIT'S/DIVISION'S OPTAR GRANT, FISCAL YEAR TO DATE. ANY CHANGES WILL BE REFLECTED IN THE DIFFERENCE BETWEEN THE OPENING AND CLOSING BALANCES UNDER THIS HEADING. THIS FIGURE SHOULD AGREE WITH OPTAR GRANTS RECEIVED FROM COMSUBGRU FIVE FOR SUPPORTED UNITS OR DEPARTMENT HEADS FOR DIXON DIVISIONS.

D. OBLIGATIONS - THE TOTAL DOLLAR VALUE OF ALL OUTSTANDING REQUISITIONS FOR THE CURRENT FISCAL YEAR.

E. YEAR TO DATE EXP. - THE TOTAL DOLLAR VALUE OF ALL RECEIPTS ON CURRENT FISCAL YEAR REQUISITIONS. WHEN A RECEIPT IS PROCESSED FOR AN OUTSTANDING REQUISITION, THE DOLLAR VALUE INVOLVED MOVES TO THIS HEADING FROM THE OBLIGATIONS COLUMN. ISSUES FROM DIXON STOCK ARE ALSO INCLUDED UNDER THIS HEADING.

F. GROSS ADJ. OBL. - THE SUM OF THE OBLIGATIONS AND YEAR TO DATE EXP. HEADINGS.

G. AVAILABLE BAL. - THE DIFFERENCE BETWEEN THE ALLOCATION AND GROSS ADJ. OBL. HEADINGS. A "CR" AFTER THIS FIGURE INDICATES A DEFICIT BALANCE.

3. DETAILED LISTING: THE DETAILED LISTING CONTAINS ALL TRANSACTIONS THAT AFFECT REQUISITIONS INITIATED BY THE UNIT/DIVISION. THE TRANSACTIONS ARE IDENTIFIED BY DOCUMENT IDENTIFIERS (DI'S) WHICH APPEAR UNDER THE "D/I" HEADING ON THE FAR LEFT OF THE LISTING. THE DI'S ARE DEFINED AS FOLLOWS:

A. AOA - AN OBLIGATION FOR A STOCK NUMBERED ITEM FOR WHICH A REQUISITION HAS BEEN TRANSMITTED TO A SUPPLY ACTIVITY OTHER THAN DIXON. THE QUANTITY LISTED UNDER THE "QTY" HEADING REPRESENTS THE TOTAL QUANTITY ORDERED. IF THE QUANTITY ORDERED IS LESS THAN THAT ORIGINALLY REQUESTED, CHECK THE REPORT FOR AN ISSUE (X31) FOR THE REMAINING QUANTITY. IF NONE APPEARS BY THE NEXT LISTING, CONTACT THE DIXON END-USE FINANCIAL SECTION.

B. AOD - AN OBLIGATION FOR AN ITEM IDENTIFIED BY OTHER THAN AN NSN OR PART NUMBER (i.e. NAVY ITEM CONTROL NUMBER (NICN) OR DOD AMMO CODE ORDERING NUMBER).

C. AOE - AN OBLIGATION FOR AN ITEM IDENTIFIED BY A PART NUMBER OR FOR SERVICES (i.e. OPEN PURCHASES, MONEY VALUE ONLY TRANSACTIONS SUCH AS SERVART RUNS AND ITEMS BOUGHT FROM A COMMERCIAL SOURCE). THE QUANTITY LISTED NORMALLY WILL BE ONE, UNLESS THE OBLIGATION IS FOR CONTINUING SERVICES, IN WHICH CASE THE QUANTITY SHOULD BE C9999. IF REPORT 21 LISTS AN "AOE" WITH ANY QUANTITY OTHER THAN THE TWO INDICATED ABOVE, CONTACT THE DIXON END-USE FINANCIAL SECTION.

D. AE - A CANCELLATION FOR A PREVIOUSLY LISTED OBLIGATION (EITHER "AOA", "AOD" OR "AOE"). THE CREDITED MONEY VALUE WILL BE LISTED UNDER THE "TOTAL PRICE" HEADING ON THE LISTING AND WILL BE TAKEN UP AS A CREDIT IN THE OPTAR LOG THROUGH PROPER COMPLETION OF THE RECONCILIATION PROCESS. IT IS IMPORTANT THAT "AE" CANCELLATIONS BE PROCESSED IN A TIMELY MANNER TO INSURE NEW REQUISITIONS ARE SUBMITTED IF THE MATERIAL EQUIPMENT STILL EXISTS. THE OPTAR LOG CREDIT ADJUSTMENT AND MATERIAL REORDER MUST BE ACCOMPLISHED PRIOR TO THE END OF THE FISCAL YEAR TO PRECLUDE LOSS OF FUNDS.

E. X31 - ISSUE FROM TENDER STOCK. QUANTITY AND TOTAL PRICE SHOULD BE COMPARED TO THE OPTAR LOG ENTRY. THESE FIGURES COULD DIFFER FROM THE OPTAR LOG FOR A NUMBER OF REASONS, THE MOST COMMON OF WHICH ARE:

(1) TOTAL PRICE DIFFERENCE BECAUSE THE ITEM IS CARRIED ON THE COMPUTER AT A PRICE DIFFERENT FROM THE ONE SHOWN ON THE 1250-1.

(2) ISSUED QUANTITY IS MORE THAN ORDERED. OFTEN THERE IS A MINIMUM ISSUE QUANTITY. FOR EXAMPLE, 46 OF AN ITEM WERE ORDERED, WITH A UNIT OF ISSUE OF EA; THE ITEM IS PACKAGED 50 TO A BOX, IN WHICH CASE IT IS MORE PRACTICAL TO ISSUE 50 THAN TO BREAK UP THE BOX.

(3) ISSUED QUANTITY IS LESS THAN INDICATED ON THE OPTAR LOG. THE UNIT PACK CONCEPT CAN ALSO APPLY HERE, BUT IN MOST CASES THE DIFFERENCE WILL RESULT BECAUSE OF A PARTIAL ISSUE. THE RPO SHOULD CHECK TO SEE IF A REQUISITION WAS PASSED USING THE SAME DOCUMENT NUMBER FOR THE REMAINING QUANTITY. THIS WILL BE INDICATED BY D/I "AOA". IF THE REQUISITION DOES NOT SHOW BY THE NEXT WEEKLY REPORT 21, EITHER THE REMAINING QUANTITY WAS CANCELLED (COMMON WHEN DEALING WITH THE TENDER'S LOCAL STOCK NUMBERS, AS THESE NUMBERS ARE NOT RECOGNIZED BY NAVAL SUPPLY CENTERS) OR A MISTAKE WAS MADE. CHECK WITH DIXON END-USE FINANCIAL SECTION FOR RESOLUTION.

(4) THE REQUISITION WAS FOR A SUBMART RUN. IN THIS CASE, AN X31 WILL BE LISTED UNDER THE SAME DOCUMENT NUMBER FOR EACH INDIVIDUAL ITEM RECEIVED AT THE TENDER SUBMART. BE SURE TO TOTAL ALL X31'S UNDER THE SAME DOCUMENT NUMBER BEFORE COMPARING WITH THE OPTAR LOG. NOTE: DUE TO SUADPS PROCESSING PROCEDURES, IT IS POSSIBLE FOR X31'S FOR DIFFERENT INDIVIDUAL ITEMS USING THE SAME DOCUMENT NUMBER TO BE LISTED ON MORE THAN ONE REPORT 21. IT IS THEREFORE IMPORTANT TO RETAIN THE SUBMART SHOPPING LIST AND ADDING MACHINE TAPE FOR REFERENCE.

(5) AN X31 COULD ALSO BE A CREDIT VALUE, INDICATING REIMBURSEMENT IS BEING MADE FOR A PREVIOUS ERRONEOUS CHARGE.

F. X50 - INDICATES AN INCREASE OR DECREASE IN A UNIT'S/DIVISION'S OPTAR GRANT AND POSTS THE CHANGE TO THE "ALLOCATION" HEADING IN THE FINANCIAL PORTION OF THE REPORT. THE COMPUTER ALSO RECOMPUTES THE "AVAILABLE BALANCE" WHEN THIS D/I IS LISTED. AN ENTRY SHOULD BE MADE ON THE OPTAR LOG ADJUSTING OPTAR GRANT AND AVAILABLE BALANCE.

G. X71 - A RECEIPT FOR AN ITEM ORIGINALLY OBLIGATED UNDER D/I "AOA" OR "AOD". THE FOLLOWING POSSIBILITIES EXIST WHEN A D/I "X71" IS INDICATED:

(1) THE PRICE AGREES WITH THE OPTAR LOG AND THE LISTING SHOWS NO DOLLAR VALUE ASSIGNED TO THE FAR RIGHT-HAND "ADJUSTMENTS" COLUMN. THIS IS THE MOST COMMON SITUATION AND THE DOLLAR VALUE OF THE TRANSACTION MERELY SHIFTS FROM THE "OBLIGATIONS" HEADING TO THE "YEAR TO DATE EXP" HEADING IN THE TOP FINANCIAL PORTION OF THE REPORT. NO ADDITIONAL CHARGES ARE INCURRED AGAINST YOUR OPTAR.

(2) THE QUANTITY IS LESS THAN THE ORIGINAL "AOA" OBLIGATION AND NO ADJUSTMENT IS INDICATED. IN THIS CASE, THE "X71" REPRESENTS A PARTIAL RECEIPT AND THE REMAINING QUANTITY WILL EITHER HAVE BEEN LISTED IN A PREVIOUS REPORT OR CAN BE EXPECTED AT A LATER DATE. NO FINANCIAL ADJUSTMENT IS NECESSARY ON THE OPTAR LOG.

(3) THE QUANTITY INDICATED IS LESS THAN ORIGINAL "AOA" OBLIGATION AND A PRICE ADJUSTMENT IS INDICATED. IN THIS CASE, THE "X71" REPRESENTS A FINAL RECEIPT AND THE DOLLAR VALUE OF THE ADJUSTMENT WILL BE APPLIED TO THE OPTAR LOG THROUGH PROPER COMPLETION OF THE RECONCILIATION PROCESS. IT IS POSSIBLE THAT THE ADJUSTMENT VALUE WILL BE AN ADDITIONAL CHARGE, EVEN THOUGH THE FULL ORDER WAS NOT RECEIVED. THIS OCCURS IF THERE HAS BEEN A SIGNIFICANT PRICE INCREASE BETWEEN THE TIME THE MATERIAL WAS ORDERED AND THE TIME IT WAS RECEIVED.

(4) THE QUANTITY AGREES WITH THE ORIGINAL "AOA" QUANTITY; HOWEVER, TOTAL PRICE IS DIFFERENT AND AN ADJUSTMENT IS INDICATED. AGAIN, THESE ARE CAUSED BY PRICE CHANGES.

THE ONLY DOLLAR VALUES OPPOSITE AN X71 D/I WHICH AFFECT THE OPTAR BALANCE ARE THOSE DOLLAR VALUES LISTED UNDER THE ADJUSTMENTS COLUMN. TRANSACTIONS AFFECTING THE OPTAR LOG BALANCE WILL BE PROCESSED AGAINST THE OPTAR LOG BALANCE THROUGH PROPER COMPLETION OF THE RECONCILIATION PROCESS.

H. X73 - A RECEIPT LIKE THE X71 EXCEPT THAT THIS INDICATES A RECEIPT ORIGINALLY OBLIGATED AS AN "AOE VICE "AOA OR "AOD". THE QUANTITY INDICATED SHOULD NORMALLY BE EITHER ONE OR C9999.

I. X76 & X77 - FINANCIAL ADJUSTMENTS TO OBLIGATIONS WHICH WERE REPORTED TO FNAOCPAC ERRONEOUSLY AND ARE NOW BEING ADJUSTED AT FNAOCPAC'S REQUEST. THERE ARE NUMEROUS REASONS FOR SUCH ADJUSTMENTS, INCLUDING ADDITIONAL CHARGES AGAINST CONTINUING CONTRACTS FOR WHICH INSUFFICIENT FUNDS WERE ORIGINALLY OBLIGATED, OR THE RECEIPT OF CHARGES BY FNAOCPAC UNDER A DIFFERENT FUND CODE (IN WHICH CASE AN OFF-SETTING CREDIT IS NORMALLY APPLIED). THESE TRANSACTIONS WILL BE PROCESSED AGAINST THE OPTAR LOG BALANCE THROUGH PROPER COMPLETION OF THE RECONCILIATION PROCESS.

J. X78 - AN INCREASE OR DECREASE IN THE OBLIGATION FIGURE FOR A CONTINUING CONTRACT. (ORIGINALLY OBLIGATED UNDER D/I "AOE", QUANTITY C9999).

USS DIXON AS-37

R20132

DIVISION BUDGET REPORT FOR PERIOD ENDING 30 NOV 1979
DIVISION NAME 67 20132

TYPE OF TAR S+E

ALLOCATION		OBLIGATIONS		YEAR TO DATE EXP		GROSS ADJ OBL		AVAILABLE BAL		ADJUSTMENT				
D/I	DOCUMENT NO.	STOCK/PART NO.	DESCRIPTION	UI	RI	FC	CG	PRI	BTIC	REF	QTY	UNIT PRICE	TOTAL PRICE	ADJUSTMENT
		OP. BAL.	10,000.00	1,269.00			475.00					8,056.00		
		CL. BAL.	12,000.00	1,637.00			979.00					9,384.00		
X78	R2013292746701			EA		MJ						1,000.00	500.00	.00
X71	R2013292746703	8010002422089	THINNER	EA	NDZ	MC	9Q	13			5	2.00	10.00	.00
X73	R2013292786706	BVA	PAPER	EA		PC	9G	06			1	340.00	340.00	4.00CR
CUMULATIVE MONTHLY TRANSACTIONS														
X78	R2013292746701			EA		MJ						1,000.00	500.00	.00
X71	R2013292746703	8010002422089	THINNER	EA	NDZ	MC	9Q	13			5	2.00	10.00	.00
X73	R2013292786706	BVA	PAPER	EA		PC	9G	06			1	340.00	340.00	4.00CR
A0E	R2013292796708	O.P.	SAFETY	EA	NDZ	MC	9G	06			1	250.00	250.00	
X31	R2013292816709	01021F0134840	134MM CARDS	EA		MC	1I	13			8	4.50	36.00	
X31	R2013292846712	5035001246607	TAP, SOUND	EA		ME	9N	06			1	260.00	260.00	
X50	R2013292946700	ALLOCATION										2,000.00		
X71	R2013292976719	4470002679178	VALVE	EA	N35	MR	1H	06			2	30.00	60.00	30.00CR
X31	R2013292996720	0108LF5012508	1250-1	EA		MC	1I	13			5	18.00	90.00	
X31	R2013292996720	0108LF5012508	1250-1	EA		MC	1I	13			5	18.00	90.00	

4. SPECIAL NOTES

A. FUND CODE Y6: FUND CODE "Y6" TRANSACTIONS ARE LISTED ON THE REPORT 21, BUT DO NOT AFFECT THE OPTAR BALANCE. HOWEVER, STOREKEEPERS/RPPOS SHOULD BE ALERT FOR COG MIGRATIONS (i.e. 2N TO 1N OR VICE VERSA), WHICH MIGHT AFFECT THE BALANCE AND REQUIRE AN OPTAR ADJUSTMENT.

B. MONTHLY REPORT: THE FINAL WEEKLY REPORT 21 FOR EACH MONTH WILL BE DATED AS THE LAST DAY OF THE MONTH. THIS REPORT IS UNIQUE IN THAT IT NOT ONLY LISTS ALL WEEKLY TRANSACTIONS IN THE DETAILED LISTING PORTION, BUT ALSO PROVIDES A CUMULATIVE LIST OF ALL TRANSACTIONS WHICH WERE PROCESSED DURING THE MONTH.

C. LOST REQUISITIONS: REQUISITIONS WHICH HAVE BEEN SUBMITTED AND DO NOT APPEAR ON THE REPORT 21 WITHIN ONE MONTH SHOULD BE INVESTIGATED TO DETERMINE THE REASON WHY THEY HAVE NOT BEEN PROCESSED.

D. DLR: ITEMS WITH 7H, 7G, 7E, AND 7Z COG ARE CHARGEABLE MANDATORY TURN-INS (MTR). THE OPTAR FOR DIXON DLR IS MAINTAINED BY DIXON SUPPLY SUPPORT CENTER.

PART III
RECONCILIATION PROCEDURES

APPLICABILITY: DIXON
SUBGRU FIVE UNITS

RECONCILIATION PROCEDURES

STEP I RECEIVE MONTHLY REPORT 21. NOTIFY THE DIXON END-USE FINANCIAL SECTION IF THIS REPORT IS NOT RECEIVED. COMPUTER LISTINGS SHOULD BE PROCESSED/RECONCILED AS THEY ARE RECEIVED MONTHLY, TO KEEP THE OPTAR LOG BALANCE CURRENT BY INCLUDING ALL PRICE ADJUSTMENTS AND COG MIGRATIONS DISCOVERED DURING THE MONTHLY RECONCILIATION PROCESS.

STEP II CIRCLE ALL Y6 FUND CODE TRANSACTIONS IN RED INK, ON THE REPORT 21 TO PREVENT FROM TAKING ACCIDENTAL ADJUSTMENTS WHILE WORKING THE LISTINGS. FUND CODE Y6 TRANSACTIONS DO NOT AFFECT THE OPTAR BALANCE UNLESS MIGRATION HAS OCCURRED.

STEP III SUPPORTED UNITS DRAW TWO LINES, TO FORM THREE COLUMNS, DOWN THE RIGHTHAND SIDE OF THE REPORT 21 AND LABEL THE COLUMNS MR, MC, AND OTHER. AS SUPPORTED UNITS ARE RESPONSIBLE FOR STRICT FUND CODE ACCOUNTING, ADJUSTMENTS WILL BE POSTED TO THEIR RESPECTIVE FUND CODE COLUMNS ON THE REPORT 21. CREDIT ADJUSTMENTS WILL BE CIRCLED TO DISTINGUISH THEM FROM DEBIT ADJUSTMENTS.

DIXON OPTAR HOLDERS DRAW ONE LINE, TO FORM TWO COLUMNS DOWN THE RIGHTHAND SIDE OF THE REPORT 21 AND LABEL THE COLUMNS "+" AND "-". ADJUSTMENTS WILL BE POSTED TO EITHER THE "+" OR "-" COLUMN DEPENDING ON THE TYPE OF ADJUSTMENT TAKEN.

STEP IV COMPARE EACH REQUISITION ON THE REPORT 21 WITH EACH REQUISITION POSTED ON THE OPTAR LOG ON AN INDIVIDUAL REQUISITION BASIS:

A. NO ADJUSTMENT REQUIRED IF THE ENTRY ON THE REPORT 21 MATCHES THE AMOUNT OBLIGATED IN THE OPTAR LOG AND THE QUANTITY ALSO AGREES, THEN SIMPLY CHECK-MARK THE REQUISITION ON THE REPORT 21 AND ENTER THE MONTH, THE DOCUMENT IDENTIFIER, THE QUANTITY AND THE TOTAL PRICE IN THE REMARKS COLUMN OF THE OPTAR LOG. EXAMPLE (10,A0A,5,\$25.00), 10 MEANS THE MONTH OF OCTOBER, THE A0A IS THE DOCUMENT IDENTIFIER, THE 5 IS THE QUANTITY AND THE \$25.00 IS THE TOTAL PRICE.

B. NORMAL PRICE ADJUSTMENTS IF THE AMOUNT OBLIGATED IN THE OPTAR LOG FOR A PARTICULAR REQUISITION, DIFFERS FROM THE AMOUNT POSTED ON THE REPORT 21 AND THE QUANTITY AGREES, THEN DO THE FOLLOWING:

1. DETERMINE IF THE PRICE DIFFERENCE IS DUE TO A NORMAL PRICE CHANGE OR IF THE DIFFERENCE IS DUE TO AN ERROR. IF THE PRICE DIFFERENCE IS DUE TO A NORMAL PRICE CHANGE PROCEED ON TO STEP IVB2. IF THE AMOUNT CHARGED ON THE REPORT 21 IS IN ERROR, CONSULT THE ERROR SECTION OF THIS CHAPTER.

2. ANNOTATE ON THE REPORT 21, NEXT TO THE TOTAL PRICE COLUMN, THE AMOUNT OBLIGATED IN THE OPTAR LOG FOR THAT PARTICULAR REQUISITION.

3. POST THE DIFFERENCE BETWEEN THE AMOUNT OBLIGATED IN THE OPTAR LOG AND THE AMOUNT CHARGED ON THE REPORT 21, IN THE RESPECTIVE COLUMN ON THE RIGHT-HAND SIDE OF THE REPORT 21.

4. ANNOTATE THE OPTAR LOG, IN THE REMARKS COLUMN OF THE RESPECTIVE REQUISITION, THE MONTH OF THE REPORT 21, DOCUMENT IDENTIFIER, QUANTITY, TOTAL PRICE BASED ON THE REPORT 21 OBLIGATION/EXPENDITURE POSTING, AND IN THE RESPECTIVE ADJUSTMENT COLUMN THE ADJUSTED DIFFERENCE.

C. PARTIAL OBLIGATIONS: IF THE QUANTITY REQUESTED ON YOUR REQUISITION DOES NOT MATCH THE QUANTITY OBLIGATED ON THE REPORT 21, CHANCES ARE THAT A PARTIAL ISSUE WAS MADE FROM DIXON STOREROOMS (X31) AND THE BALANCE WAS PASSED AS AN AØ_. IT IS POSSIBLE THAT EITHER THE X31, AØ_ OR BOTH WILL APPEAR ON THE SAME REPORT 21. SHOULD ONLY THE X31 OR ONLY THE AØ_ APPEAR ON THE REPORT 21 AS A PARTIAL OBLIGATION, TAKE THE FOLLOWING STEPS:

1. COMPARE THE UNIT PRICE OBLIGATED WITH THE UNIT PRICE CHARGED; IF THE UNIT PRICES ARE DIFFERENT, MULTIPLY THE DIFFERENCE TIMES THE QUANTITY YOU ORDERED IN THE OPTAR LOG AND TAKE THE ADJUSTMENT.

2. LIST THE PARTIAL ISSUE IN ENCLOSURE (1) OF THE BALANCE SHEET AS A MISSING REQUISITION AND WRITE PARTIAL OBLIGATION MISSING IN THE REMARKS COLUMN.

3. ANNOTATE THE REMARKS BLOCK OF THE OPTAR LOG WITH A "P" TO DENOTE PARTIAL OBLIGATION, ALSO INCLUDE REPORT 21 MONTH, DOCUMENT IDENTIFIER, AMOUNT CHARGED AND QUANTITY BILLED FOR, THE ABBREVIATION "ADJ" IF A PRICE ADJUSTMENT TAKEN.

4. AS THE MISSING PARTIAL OBLIGATION APPEARS ON THE NEXT REPORT 21, CROSS OUT THE "P" IN THE REMARKS BLOCK OF THE OPTAR LOG AND DISCONTINUE LISTING IT AS A REQUISITION NOT APPEARING ON THE COMPUTER (ENCLOSURE 1) OF THE BALANCE SHEET.

D. CANCELLATIONS: WHEN REQUISITIONS ARE CANCELLED, EITHER BEFORE THEY REACH A SUPPLY ACTIVITY OR AFTER PROOF WAS PROVIDED, YOU MAY TAKE IMMEDIATE CREDIT FOR THE MONEY ON THE NEXT AVAILABLE LINE IN THE OPTAR LOG AND ANNOTATE SAME WITH REQUISITION NUMBER, PROOF OF CANCELLATION AND AMOUNT OF CREDIT TAKEN. (EXAMPLE: CANC ADJ 8362-2776, MESSAGE DTG, \$4.00).

1. ANNOTATE, IN THE REMARKS BLOCK, OF THE OPTAR LOG, OF THE REQUISITION BEING CANCELLED, WHERE THE CANCELLATION CREDIT WAS TAKEN. (I.E. CANC 1171) MEANING THAT THE CREDIT WAS TAKEN ON THE NEXT LINE AFTER REQUISITION 1171.

2. ENSURE THAT THE CANCELLED REQUISITION IS NOT INCLUDED IN THE LIST OF REQUISITIONS NOT APPEARING ON THE COMPUTER IN THE BALANCE SHEET.

3. IF AN AE_ FOR A REQUISITION THAT YOU HAVE TAKEN CREDIT FOR DOES NOT APPEAR AND AN AØ_ HAD PREVIOUSLY APPEARED, THEN THE AØ_ ON THE REPORT 21 MUST BE LISTED AS A COMPUTER ERROR AND WILL BE POSTED ON THE REPORT 21 CHALLENGES, ENCLOSURE (2) OF THE BALANCE SHEET, SINCE THE OPTAR LOG AND THE COMPUTER WILL ALWAYS DISAGREE BY THAT AMOUNT.

4. IF AN AE_ FOR A REQUISITION THAT YOU HAVE PREVIOUSLY TAKEN CREDIT FOR APPEARS ON THE REPORT 21, DO NOT TAKE ADDITIONAL CREDIT FOR THE CANCELLATION. THE CANCELLATION IS NOT TO BE LISTED IN THE COMPUTER CHALLENGES ENCLOSURE (2) OF THE BALANCE SHEET.

5. IF THE OPTAR LOG CUT-OFF DOCUMENT NUMBER USED TO MAKE UP THE BALANCE SHEET PRECEEDS THE DOCUMENT NUMBER WHERE THE CANCELLATION CREDIT WAS TAKEN, THEN THE BALANCE SHEET WILL NOT BALANCE. YOU MUST INCLUDE THE AMOUNT CREDITED.

E. COMPUTER ERRORS/CHALLENGES: THE FOLLOWING ARE EXAMPLES OF COMPUTER ERRORS/CHALLENGES WHICH COULD APPEAR ON THE REPORT 21. IF YOU FIND ONE, DON'T TAKE AN ADJUSTMENT ON THE TRANSACTION; POST THE TRANSACTION IN ENCLOSURE (2) OF THE BALANCE SHEET REPORT.

1. DOUBLE CHARGE FOR THE SAME REQUISITION. IF YOUR OPTAR LOG IS ANNOTATED PROPERLY, THE SECOND TIME A X31 APPEARS, IT WILL BE IMMEDIATELY APPARENT THAT SOMETIME PRIOR TO THE LISTING THAT YOU ARE PROCESSING, THE SAME REQUISITION HAD APPEARED BLFORE AND IS A DOUBLE CHARGE.

2. KEYPUNCH ERROR/TRANSCRIPTION ERROR. THIS OCCURS WHEN THE AMOUNT CHARGED ON THE REPORT 21 EXCEEDS THE AMOUNT NORMALLY ATTRIBUTED TO PRICE CHANGES. THIS CAN BE CHECKED BY VERIFYING THE UNIT PRICE LISTED ON THE DIXON MSSL OR THE ML-N WITH THE AMOUNT CHARGED ON THE REPORT 21.

F. SUBMART REQUISITIONS: SUBMART REQUISITIONS WILL BE HANDLED IN THE FOLLOWING MANNER:

1. ANNOTATE THE TOTAL PRICE INDICATED ON THE SUBMART MVO CHIT, PROCESSED BY THE SUBMART STOREKEEPER, IN THE OPTAR LOG.
2. WHEN THE SUBMART X31 DI SUBMART RUN APPEARS ON THE REPORT 21, ADD UP ALL CHARGES POSTED AGAINST THE SUBMART REQUISITION.
3. ANNOTATE IN THE REMARKS COLUMN OF THE OPTAR LOG, THE REPORT 21 DATE, DOCUMENT IDENTIFIER AND THE TOTAL AMOUNT CHARGED ON THE REPORT 21.
4. IF THE AMOUNT CHARGED ON THE REPORT 21 EQUALS THE AMOUNT OBLIGATED IN THE OPTAR LOG, TAKE NO FURTHER ACTION. IF THEY DIFFER, IT MEANS THAT SOME OF THE CHARGES HAVE FAILED TO MAKE THE REPORT 21 PRINTING DEADLINE AND SHOULD APPEAR ON THE NEXT REPORT 21 PRINTED. DO NOT TAKE AN ADJUSTMENT FOR THE MISSING BALANCE. MAKE AN ADDITIONAL ANNOTATION IN THE REMARKS COLUMN OF THE OPTAR LOG WITH THE ABBREVIATION "P" TO DOCUMENT A PARTIAL ISSUE. THE MISSING BALANCE WILL BE VIEWED AS A REQUISITION NOT APPEARING ON THE COMPUTER AND WILL BE POSTED IN ENCLOSURE (1) OF THE BALANCE SHEET WITH THE REMARKS "PARTIAL OBLIGATION, BALANCE OUTSTANDING".

REQUISITION/OPTAR LOG

[illegible]

USS DIXON AS-37

REQUISITION/OPTAR LOG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
UIC	WDBA CIN	JSN	JULIAN DATE	SERIAL NO	COA	STOCK NO.	DESCRIPTION	PRICU	U	QTY	UNIT PRICE	TOTAL PRICE	FROM REPORT 21 MONTH/DY/YY	ADJUSTMENT	AVAILABLE BALANCE	DATE FISCAL		
BALANCE BROUGHT FORWARD FROM PREVIOUS PAGE																		
			9310	6723	92	9105 00 655 2495	Box Plaster	13	MC	08	1	8.42			8.52647			
			9320	6724	96	1210-00-215-6355	Fixture	06	MR EA	4	30.25	122.00			8.59012			
			9325	6725	96	NVO - SUBMART	VARIOUS	13	MC EA	1	100.00	100.00			8.57565			
			9326	6726	96	1800 - HOUSE	CALCULATOR	06	MC EA	1	195.00	195.00			8.57485			
						ADJUSTMENT AS OF OCT & NOV 87	21				3.84104				8.10035			
											3.71324				8.18283			
BALANCE CARRIED FORWARD TO NEXT PAGE																		
															PAGE NO. 2			
															ALLOCATION: 12,000.00			

USS DIXON AS-37

R20132

DIVISION BUDGET REPORT FOR PERIOD ENDING 30 NOV 1979
DIVISION NAME 67 20132

TYP: OPTAR S+2

ALLOCATION		OBLIGATIONS		YEAR TO DATE EXP				GROSS ADJ OBL		AVAILABLE BAL		ADJUSTMENT		
QF. BAL.	CL. BAL.	STOCK/PART NO.	DESCRIPTION	UI	RI	PC	CG	PRI	BUTC	REF	QTY		UNIT PRICE	TOTAL PRICE
			THIRDER	EA	NDZ	PC	90	13			5	1,000.00	500.00	
			PAPER	EA	NDZ	PC	90	06			1	2.00	10.00	.00
						PC	90	06				340.00	340.00	4.00CR
CREATIVE INDUSTRY TRANSACTIONS														
X78		R2013292746701	THIRDER	EA	NDZ	PC	90	13			5	1,000.00	500.00	
X71		R2013292746703	PAPER	EA	NDZ	PC	90	06			1	2.00	10.00	.00
X0E		R2013292796708	SWITCHES	EA	NDZ	PC	90	06			1	344.00	340.00	4.00CR
X31		R2013292916709	1318N CARDS	EA	NDZ	PC	11	13			8(35.20)	250.00	250.00	
X31		R2013292946712	TAPE, SQUID	EA	NDZ	PC	11	13			1	36.00	36.00	.80
X50		R2013292946700	ALCOHOL	EA	NDZ	PC	90	06			1	200.00	200.00	40.00
X71		R2013292976719	VALVE	EA	N35	PC	11	06			2	30.00	60.00	
X31		R2013292956720	1250-1	EA	N35	PC	11	13			5	18.00	90.00	30.00CR
X31		R2013292956720	1250-1	EA	N35	PC	11	13			5	18.00	90.00	
												5.80	74.00	

+ 68.20
+ 17.60

95.80 TOTAL
ADJUSTMENT
AS OF OCT
4 NOV 1979

PART IV

OPTAR/LOG/REPORT 21 BALANCE SHEET

APPLICABILITY: DIXON
SUBGRU FIVE UNITS

OPTAR LOG/REPORT 21 BALANCE SHEET

A LEGIBLE COPY OF A COMPLETED OPTAR LOG/REPORT 21 BALANCE SHEET WILL BE RETURNED TO THE END-USE FINANCIAL SECTION, DIXON STOCK CONTROL DIVISION, WITHIN FIVE WORKING DAYS AFTER RECEIPT OF THE MONTHLY REPORT 21.

BRIEF EXPLANATION OF THE OPTAR LOG/REPORT 21 BALANCE SHEET

1. THE DATE OF THE REPORT 21 BEING RECONCILED.
2. CHECK OPTAR, ROV, TAV OR REIMBURSABLES. FOR SUPPORTED UNITS IT IS ALWAYS OPTAR. FOR DIXON DEPARTMENTS/DIVISION WRITE THE SERIAL NUMBER ASSIGNED TO YOUR FINANCIAL OPTAR.
3. REPORT 21 CUT-OFF DOCUMENT NUMBER, THE LAST SERIAL NUMBER LISTED ON THE REPORT 21.
4. LAST SERIAL NUMBER ENTRY IN YOUR OPTAR LOG.
5. PRINT YOUR NAME, RATE AND PHONE NUMBER.
6. TOTAL GROSS ADJUSTED OBLIGATIONS ACCORDING TO REPORT 21.
7. REQUISITIONS NOT APPEARING ON COMPUTER - TOTAL DOLLAR VALUE OF REQUISITIONS LISTED IN YOUR OPTAR LOG THAT HAVE FAILED TO HIT THE REPORT 21.
8. TOTAL DOLLAR VALUE OF CHALLENGES TO REPORT 21 OBLIGATIONS. (I.E. DOUBLE CHARGES, KEYPUNCH ERRORS IN PRICE, ETC)
9. CORRECTED COMPUTER TOTAL OBLIGATIONS - LINE 6 PLUS LINE 7 PLUS/MINUS LINE 8.
10. OPTAR LOG TOTAL OBLIGATIONS - TOTAL OBLIGATIONS IN THE OPTAR LOG AS OF THE LAST ENTRY SERIAL NUMBER, PLUS ALL ADJUSTMENTS DUE TO RECONCILIATIONS MADE WITH REPORT 21.
11. IF THE DIFFERENCE BETWEEN LINE 9 AND 10 IS MORE THAN 1% OF THE HIGHEST AMOUNT, A RECONCILIATION WITH THE DIXON END-USE FINANCIAL SECTION MUST BE CONDUCTED TO RESOLVE THE DIFFERENCE PRIOR TO SUBMISSION OF THE REPORT 21 BALANCE SHEET.
12. TOTAL ALLOCATIONS - TOTAL FISCAL YEAR TO DATE ALLOCATIONS GRANTED TO YOUR OPTAR.
13. OPTAR LOG CURRENT AVAILABLE BALANCE - AS OF LAST SERIAL NUMBER ENTRY WITH ADJUSTMENTS.

ENCLOSURE (1) REQUISITIONS NOT APPEARING ON THE COMPUTER

LIST ALL REQUISITIONS LISTED IN THE OPTAR LOG THAT HAVE FAILED TO HIT THE REPORT 21, UP TO THE LAST SERIAL NUMBER REQUISITION LISTED ON THE REPORT 21 BEING RECONCILED. ALL REQUISITIONS MISSING FROM THE REPORT 21 WITH SERIAL NUMBERS AFTER THE REPORT 21 CUT-OFF NUMBER WILL BE BATCH POSTED WITH A ONE LINE ENTRY. (I.E. REQN 8235-1021 THRU 8256-1167..... \$45,000.00) EXCEPTION: WHEN RECONCILING SEPTEMBER REPORT 21 LIST ALL REQUISITIONS IN THE OPTAR LOG UP TO AND INCLUDING 30 SEPTEMBER IN ENCLOSURE (1) OF THE REPORT 21 BALANCE SHEET. IT IS IMPORTANT THAT ALL DATA BLOCKS ON THIS ENCLOSURE BE COMPLETED REQUISITIONS NOT APPEARING ON THE COMPUTER ARE CUMULATIVE FROM THE BEGINNING OF THE FISCAL YEAR UNTIL THEY APPEAR ON THE REPORT 21. WHEN THE MISSING FULL OR PARTIAL OBLIGATION APPEARS ON THE REPORT 21, CROSS OUT OR/AND DISCONTINUE LISTING THEM IN ENCLOSURE (1) OF THE BALANCE SHEET.

ENCLOSURE (2) REPORT 21 CHALLENGES

LIST ALL CHALLENGES TO THE COMPUTER REPORT 21 OBLIGATIONS THAT YOU FEEL ARE IN ERROR. EXAMPLE - DOUBLE CHARGES, KEYPUNCH ERRORS THAT RESULT IN WRONG UNIT PRICE, ETC. FILL IN ALL DATA BLOCKS. CHALLENGES ARE ALSO CUMULATIVE FROM THE BEGINNING OF THE FISCAL YEAR UNTIL THEY ARE CORRECTED ON THE REPORT 21. ONLY THEN, CAN THEY BE DISCONTINUED FROM BEING LISTED IN ENCLOSURE (2) OF THE BALANCE SHEET.

Date: 5 DEC 79

MEMORANDUM

From: S-7 DIVISION
To: Stock Control Officer, USS DIXON AS37

Subj: OPTAR Log, Report 21 Balance Sheet

1. Report 21 for period ending 30 NOV 79
2. OPTAR 67 ROV TAV REIMB
3. Report 21 cut-off document number 9299 - 6720
4. OPTAR Log current document number 9326 - 6726
5. (Print) Name SK3 JONES Phone 7186

6. Report 21 Gl. Bal. - Gross Adj. Obl. (+) \$ 2,613 .00
7. Requisitions not Appearing on Computer.... (+) \$ 1,287 .64
(as of current document number)
8. Total Computer Challenges..... (-) \$ 90 .00
9. Corrected Computer Total Obligations..... (=) \$ 3,813 .64
(Total of lines 6 & 7 minus line 8)
10. OPTAR Log Total Obligations..... \$ 3,813 .64
(w/ adjustments as of current doc. no.)
11. Difference between line 9 and 10..... \$ - 0 -
12. Total Allocations..... \$ 12,000 .00
13. OPTAR Log Current Available Balance..... \$ 8,186 .36
(with all adjustments)

Fig. 1 (1) Requisitions not Appearing
on Computer

Division or Unit's Name: S-7 Division
For Period Ending: 30 Nov 79

PART V
SUBMARINE ACCOUNTING SUPPLEMENT

APPLICABILITY: SUBGRU FIVE UNITS

SUBMARINE SUPPLEMENT

REFERENCE (A) COMSUBPACINST 7330.2 SERIES

BACKGROUND - THE END-USE FINANCIAL SECTION OF THE STOCK CONTROL DIVISION, OF THE SUPPORTING TENDER IS RESPONSIBLE FOR THE OPTAR ACCOUNTING FOR SUBGRU FIVE UNITS. IT MAINTAINS EACH UNIT'S OPTAR BALANCE, PROVIDES LISTINGS OF OBLIGATIONS AND EXPENDITURES TO SUBGRU FIVE UNITS AND ASSISTS UNITS IN RECONCILING THEIR OPTAR RECORDS WITH BUDGET OPTAR REPORT 21.

ACTION - SUBGRU FIVE UNIT SUPPLY OFFICERS ARE RESPONSIBLE FOR THE SUBMISSION OF THE FOLLOWING MONTHLY FINANCIAL REPORTS:

A. OPTAR DOCUMENT TRANSMITTAL REPORT (NAVCOMPT FORM 2156)

1. DEPLOYED UNITS SHALL SUBMIT OPTAR DOCUMENT TRANSMITTAL REPORTS TO THE END-USE FINANCIAL SECTION, DIXON STOCK CONTROL DIVISION, IN ACCORDANCE WITH THE PROCEEDURES OUTLINED IN PARAGRAPH 4106 OF NAVSO P-3013. REPORTS SHALL BE SUBMITTED AT LEAST THREE TIMES EACH MONTH ON THE 10TH, 20TH AND LAST DAY. OPERATIONS MAY DICTATE EARLIER SUBMISSIONS IN ORDER TO MEET THE ABOVE REQUIREMENTS.

2. THE FOLLOWING SHALL BE SUBMITTED WITH THE OPTAR DOCUMENT TRANSMITTAL REPORT:

(A) COPIES OF ALL REQUISITIONS SUBMITTED DIRECTLY TO SUPPLY ACTIVITIES OTHER THAN THE DIXON. THIS INCLUDES REQUISITIONS SUBMITTED TO ANY OTHER SUBMARINE TENDER AND ALL SUPPLY CENTERS IF THE REQUISITION WAS NOT FIRST PROCESSED BY THE SUPPORTING TENDER.

(B) COPIES OF ALL RECEIPT DOCUMENTS FOR MATERIALS RECEIVED FROM SOURCES OTHER THAN DIXON'S STOREROOMS OR THROUGH FACILITIES OTHER THAN DIXON'S TRANSIT SHED. THE COPIES SHALL BE LEGIBLE, DATED AND SIGNED. THE TIMELY RETURN OF RECEIPT DOCUMENTS REDUCES THE CHANCE OF OVER CHARGING FOR MATERIAL RECEIVED BEFORE MONTHLY PRICE CHANGES ARE ENTERED INTO THE COMPUTER.

(C) IDENTIFICATION OF ALL CONFIRMED CANCELLATIONS RECEIVED FROM SUPPLY ACTIVITIES. THE FOLLOWING INFORMATION SHALL BE ANNOTATED ON THE BACK OF THE REPORT: DOCUMENT NUMBER, NSN, U/I, QUANTITY CANCELLED, COMPLETE OR PARTIAL CANCELLATION, STATUS CODE AND ROUTING IDENTIFIER OF THE CANCELLING ACTIVITY.

3. A SAMPLE OPTAR DOCUMENT TRANSMITTAL REPORT IS SHOWN IN EXHIBIT 1.

B. BUDGET/OPTAR REPORT (NAVCOMPT FORM 2157)

1. EACH SUBGRU FIVE UNIT SHALL SUBMIT BUDGET/OPTAR REPORTS TO ARRIVE ON DIXON, WITH A COPY TO COMSUBPAC (CODE 007) BY THE END OF THE FIRST CALENDER DAY FOLLOWING THE MONTH REPORTED AND IN ACCORDANCE WITH PROCEDURES PRESCRIBED IN PARAGRAPHS 503 AND 504 OF REFERENCE (A). THE SUPPORTING TENDER IS RESPONSIBLE FOR SUBMITTING THE UNIT'S REPORTS TO FAADCPAC AFTER RECONCILING THOSE REPORTS WITH THE REPORT PRODUCED BY THE SUPPORTING TENDER'S COMPUTER.
2. BUDGET/OPTAR REPORTS MUST BE SUBMITTED MONTHLY FOR THE FIRST 18 MONTHS OF AN APPROPRIATION (I.E. REPORTS FOR FY79 MUST BE SUBMITTED MONTHLY THROUGH MARCH 1980). THEREAFTER, THROUGH THE 36TH MONTH, A BUDGET/OPTAR REPORT WILL BE SUBMITTED WHENEVER THERE IS A CHANGE IN GROSS OBLIGATION DURING THE MONTH.
3. TO REDUCE DELAYS IN THIS RECONCILIATION, SUBGRU FIVE UNITS SHALL SUBMIT THE BUDGET/OPTAR REPORTS BY MESSAGE. DO NOT UTILIZE MAIL SERVICE FOR THE SUBMISSION OF REPORTS.
4. SAMPLE BUDGET/OPTAR REPORTS ARE SHOWN IN EXHIBIT (2).

C. REPORT 21 RECONCILIATION/BALANCE SHEET

1. INFORMATION AS REFLECTED ON THE TENDER COMPUTER RECORDS IS PROVIDED TO SUPPORTED UNITS WEEKLY IN THE FORM OF SUADPS REPORT 21 FOR CURRENT FISCAL YEAR FUNDS AND SUADPS REPORT 23 FOR PRIOR FISCAL YEARS. THE LAST REPORT 21 PRODUCED EACH MONTH CONTAINS ALL THE CUMULATIVE TRANSACTIONS FOR THAT MONTH.
2. SUPPORTED UNITS WILL RECONCILE THEIR MANUAL OPTAR LOGS WITH THE TENDER COMPUTER RECORDS AT LEAST ONCE EACH MONTH BY COMPARING THE MONTHLY REPORT 21 TO THEIR OPTAR LOG AND WORKING A FINANCIAL BALANCE SHEET. A COPY OF THE COMPLETED BALANCE SHEET WILL BE RETURNED TO THE TENDER WITHIN FIVE WORKING DAYS AFTER RECEIPT OF THE MONTHLY REPORT 21.

OPTAR DOCUMENT TRANSMITTAL REPORT
 NAVCOMPT FORM 2156 (REV. 7-70)
 S/N 0104-LF 704-9001

NAVCOMPT 7303-14
 UNIT IDENTIFICATION CODE
 R05143

FROM: COMMANDING OFFICER
 USS GURNARD (SSN-662)
 FPO SAN FRANCISCO 96601

TO: COMMANDING OFFICER
 USS DIXON (AS-37)
 FPO SAN FRANCISCO 96648

A. TRANSMITTAL NUMBER		B. JULIAN DATE (From)		(To)	
001/0		9274		9283	
CAPTION		NUMBER OF DOCUMENTS		MONEY VALUE	
1. CULICATION (CHARGEABLE) DOCUMENTS (FILE 1)		76		\$8,810.90	
2. CONFIRMED CANCELLATIONS (FILE 2)		0		0	
TOTAL NET VALUE OF (1 MINUS 2)				\$8,810.90	
3. RETURNED (NRFC ACTION ONLY) DOCUMENTS (FILE 3)		NOT APPLICABLE			

REMARKS:

LIST OF CONFIRMED CANCELLATIONS: (MINIMUM INFORMATION REQUIRED)

DOCUMENT NUMBER	U/I	QTY	CANCELLATION CODE	ROUTING IDENTIFIER (CANCELLING ACTIVITY)

REPORTING SUPPLY OFFICER (Signature)	DATE
D. A. BARRY, ENS, SC, USNR	10 OCT 79

SAMPLE MESSAGE BUDGET/OPTAR REPORT

FROM: USS GURNARD
TO: USS DIXON
INFO: COMSUBPAC PEARL HARBOR HI

UNCLAS //N07330//

S&E BUDGET OPTAR REPORT

1. MAY/R05143/702B/57020/FY80

A. OBLIGATION DATA

	(21)	(22)	(23)	(24)
ME	\$ 4,197.85	\$ 126.11	\$ 4,323.96	
MR	149,396.41	79.59	149,476.00	
MC	49,890.82	0	49,890.82	
M7	645.70	0	645.70	
M2	16,810.20	17.52	16,827.72	
MU	7,843.10	0	7,843.10	
MY	110.00	0	110.00	
TOTAL	\$228,894.08	\$ 223.22	\$229,117.30	

B. TRANSMITTAL DATA (FILLED IN BY DEPLOYED UNITS)

TL NO.	TOTAL
AMOUNT	

C. GRANT FYTD: \$260,000.00

D. N/A

E. N/A

2. MAY/R05143/702B/57020/FY79

A. OBLIGATION DATA

(21)	(22)	(23)	(24)
ME	\$ 5,221.42	\$ 19.30	\$ 5,240.72
MR	159,039.81	1,154.83	160.194.64
MC	36,460.30	3,421.62	39,883.92
M7	9,403.10	753.80	10,156.00
OTHER	28,426.94	200.87	28,627.81
TOTAL	\$ 238,553.57	\$ 5,550.42	\$244,103.99

B. TRANSMITTAL DATE (FILLED IN BY DEPLOYED UNITS)

TL NO.	TOTAL
AMOUNT	

C. GRANT FYTD: \$245,000.00

D. N/A

E. N/A

D. DLR INFORMATION

1. ENCLOSURE (1) IS A SAMPLE OF HOW THE BUDGET OPTAR REPORT (BOR) SHOULD LOOK. NOTICE THAT FUND CODE MB IS NOW INCLUDED IN PARAGRAPH A. THE OBLIGATION FIGURE FOR FUND CODE MB SHOULD REFLECT THE TOTAL DLR OBLIGATIONS NOT JUST THE OBLIGATIONS FOR THAT MONTH. IN ENCLOSURE (2) IT WOULD BE THE BOTTOM LINE FIGURE SHOWN IN COLUMN 17 OF \$66,000.00.

2. THE "GRANT FYTD" FIGURE IN PARAGRAPH C OF THE SHOULD NOW REFLECT THE S&E GRANT PLUS THE DLR GRANT, i.e. IF THE S&E GRANT WAS 250K AND THE DLR GRANT WAS 80K THEN THE GRANT FYTD IS 300K.

3. THE PROCEDURES FOR RECONCILING THE DLR'S AGAINST THE COMPUTER REPORT 21 SHOULD BE THE SAME AS THE S&E FUND PROCEDURES. ALTHOUGH BOTH ALLOCATION AND GROSS ADJUSTED OBLIGATIONS ARE COMBINED ON THE REPORT 21, AT THE OPTION OF EACH OPTAR HOLDER, THE DLR'S CAN EITHER BE RECONCILED SEPARATELY OR WITH THE S&E FUND. ENCLOSURE (3) IS AN EXAMPLE OF OPTAR LOG/REPORT 21 BALANCE SHEET WITH SEPARATELY RECONCILED DLR'S.

4. BE SURE TO PROCESS REPORT 21'S IN A TIMELY MANNER AND RETURN TO DIXON STOCK CONTROL.

SUBJ: S&E BUDGET OPTAR REPORT

1. JULY/R33175/702B/57020/FY81

A. OBLIGATION DATA

(21)	(22)
ME	4,007.35
MR	1,539.59
MC	43,223.40
M2	767.35
M7	948.23
M9	78.02
MV	2,456.00
MU	54,219.58
MB	66,000.00
TOTAL	173,238.43

B. TRANSMITTAL DATA (FILLED IN BY DEPLOYED UNITS)

C. GRANT FYTD: 330,000.00

D. N/A

E. N/A

ENCLOSURE (1)

REQUISITION/OPTAR LOG

Document Number	Stock No	Description	Pri	Purch	Qty	Date Mth/Day/Year	Increase or Decrease	Acct Cite	DLR MRFI	ULC Fund In To	DLR Turn In	Turn In Document No	Report 21 Processed	MS Price	Commodities Price
		PRIOR 1 APRIL DLR OBLIGATIONS													
1091 6000	7H5649011904156	CKT CARD	05	SK	1EA	1113		56	1091	100244	1094	1091-6000	5/81 X31	2,000.00	10,000.00
1092 6001	7H564900119041541	VALUE	05	SK	1EA	1118		56	1092	100244	1094	1092-6001	5/81 A34	3,000.00	12,000.00
1119 6002	7H565011200235	CKT CARD	05	SK	1EA	1124		56	1125	100244	1126	1119-6002	5/81 A0A X71	9,000.00	15,000.00
		DLR OBLIGATIONS FOR APRIL													24,000.00
															24,000.00 - 0,000 = 14,000
1131 6003	7H5660004832121	PCB	05	SK	1EA	1154		56	1150	100244	1155	1150-6004	6/81 A0A	2,000.00	26,000.00
1150 6004	7H5660011922134	TUBE	05	SK	1EA	1154		56	1150	100244	1155	1150-6004	6/81 X31	8,000.00	34,000.00
		DLR OBLIGATIONS FOR MAY													34,000.00 - 2,000 = 10,000
1152 6005	7H5649000212841	SWITCH	05	SK	1EA	1160		56	1151	100244	1155	1152-6005	7/81 A0A	2,500.00	36,500.00
1181 6006	7H5610001123412	CKT CARD	05	SK	1EA			56	1182	100244	1182	1181-6006	7/81 A0A	18,000.00	54,500.00
		DLR OBLIGATIONS FOR JUNE													
1203	CSG-5 2210152	JUL 81 DLR GRANT OF					80,000								Balance
1204 6007	7H56410018184121	CKT CARD	05	SK	1EA			56						52,500.00	27,500.00
1210 6008	7H5649011904156	CET CARD	05	SK	1EA			56						4,000.00	23,500.00
1212 6009	7H5670001118641	VALUE	05	SK	1EA			56	1223	100244	12	120-6008		2,000.00	21,500.00
		Budget OPTAR Report FOR JULY					80,000	56						7,500.00	14,000.00
1212														66,000.00	14,000.00

Date: 10 July 1981

MEMORANDUM

From: SUPPLY OFFICER, USS GUJARRO
To: Stock Control Officer, USS DIXON (AS-37)

Subj: Optar Log/Report 21 Balance Sheet

Ref: DIXONINST 7042.1D

1. Report 21 for period ending 30 JUNE 1981

2. OPTAR ✓ ROV TAV REIMB

3. Report 21 cut-off document no. 1173 - 2899.... S&E
1167 - 6307.... DLR

4. Optar Log current document no. 1187 - 2996.... S&E
1188 - 10219.... DLR

5. Name (Print) ENS SPURGEON Phone 225-2728

6. Report 21 Cl. Bal. - Gross Adj. Obl.....(+) \$ 324,505.42
MVO = 14,060.16 MISSING: S&E = 14,320.79

PM = 368.72 DLR = 22,604.00

7. Requisitions not Appearing on Computer....(+) \$ 51,353.67
(page 2, encl. (2), as of current doc. no.)

8. Total Computer Challenges.....(-) \$ 4,726.71
(page 3, encl. (2))

9. Corrected Computer Total Obligations.....(=) \$ 371,132.38
(Total of lines 6 & 7 less line 8)

S&E = 232,950.01
10. Optar Log Total Obligations DLR = 137,963.50... \$ 370,913.51
(w/adjustments as of current doc. no.)

11. Difference between line 9 and line 10..... \$ 218.87

DLR = 201,000.00

12. Total Allocations.. S&E = 280,000.00..... \$ 481,000.00

13. Optar Log Current Available Balance..... \$ 47,049.99 S&E
(w/ all adjustments) 63,036.50 DLR

ENCLOSURE (3)

LIST OF REFERENCES

1. Carlucci, Frank C., "Focusing on Fraud and Waste," Armed Forces Comptroller, Winter 1982.
2. Hopwood, Anthony, Accounting and Human Behavior, Chapter 5, Prentice Hall, Inc., 1974.
3. Shipboard Uniform Automated Data Processing System--207 (SUADPS-207) Support Procedures, NAVSUP P-522.
4. Shipboard Uniform Automated Data Processing System--207 Executive Handbook, NAVSUP P-464.
5. Navy Comptroller Manual, NAVSO P-1000.
6. Financial Management of Resources (Operating Forces) Operating Procedures, NAVSO P-3013.
7. Shipboard Uniform Automated Data Processing System Real Time Functional Description, dtd 31 December 1979.
8. Automated Data Systems Development Plan for the Shipboard Uniform Automated Data Processing System--Real Time (SUADPS-RT), dtd 1 October 1979.
9. COMSUBPAC INSTRUCTION 7330.26, Operating Forces Financial Management Procedures, dtd 31 March 1980.
10. Deardon, John, "MIS is a Mirage," Harvard Business Review, Jan/Feb 1972.
11. Mader, Chris, Information Systems--Technology, Economics, Applications, Management, Science Research Associates, Inc., 1979.
12. Dock, V. Thomas, (ed), MIS, a Managerial Perspective, Science Research Associates, Inc., 1977.
13. Office of Naval Research Contract 0014-79-C-0872, U.S. Navy Financial Accounting and Reporting Improvement Concepts by Arther Anderson & Co., 29 Feb. 1980.
14. Ackoff, Russel, Control, A Concept of Corporate Planning, Wiley-Interscience, 1970.
15. Anthony, Robert, Planning and Control System: A Framework for Analysis, Harvard Business School, 1965.

16. Newman, William, Constructive Control, Prentice Hall, Inc., 1975.
17. Hopwood, Anthony, Accounting and Human Behavior, Prentice Hall, Inc., 1974.
18. Herzlinger, Regina, "Why Data Systems in Nonprofit Organizations Fail," Harvard Business Review, Jan/Feb 1977.
19. Naval Audit Service Western Region Audit Report F00047 on Operation and Maintenance Navy Appropriation of Commander Submarine Force U.S. Pacific Fleet, dtd 12 April 1978.
20. Anthony, Robert, and Herzlinger, Regina, Management Control in Non-Profit Organizations, Richard E. Irwin, Inc., 1980.

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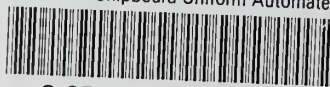
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